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## 1 Important Information

Please read this manual carefully before using the software. If the software will be used by children, the manual should be read and explained to them by an adult.

Also, before using this software, please select  in the HOME Menu and carefully review content in "Health and Safety Information." It contains important information that will help you enjoy this software.

You should also thoroughly read your Operations Manual, including the "Health and Safety Information" section, before using this software.

Please note that except where otherwise stated, "Nintendo 3DS™" refers to all devices in the Nintendo 3DS family, including the New Nintendo 3DS, New Nintendo 3DS XL, Nintendo 3DS, Nintendo 3DS XL, and Nintendo 2DS™.

### CAUTION - STYLUS USE

To avoid fatigue and discomfort when using the stylus, do not grip it tightly or press it hard against the screen. Keep your fingers, hand, wrist, and arm relaxed. Long, steady, gentle strokes work just as well as many short, hard strokes.

### Important Information

Your Nintendo 3DS system and this software are not designed for use with any unauthorized device or unlicensed accessory. Such use may be illegal, voids any warranty, and is a breach of your obligations under the User Agreement. Further, such use may lead to injury to yourself or others and may cause performance issues and/or damage to your Nintendo 3DS system and related services. Nintendo (as well as any Nintendo licensee or distributor) is not responsible for any damage or loss caused by the use of such device or unlicensed accessory. Except as authorized, copying of any Nintendo software is illegal and is strictly prohibited by domestic and international intellectual property laws. "Back-up" or "archival" copies are not authorized.

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## 2 Information-Sharing Precautions

User-generated content, or UGC, is content created by users, such as messages, Mii™ characters, images, photos, video, audio, etc.

### Information-Sharing Precautions

The extent of UGC exchange depends on the software.

- Nintendo bears no responsibility whatsoever for any problems that result from the use of the Internet (for example, the sending of content over the Internet, or the sending or receiving of content with others).

### 3 Note to Parents and Guardians

You can restrict use of the following features by adjusting the options in Parental Controls.

- ◆ Access to this game (as well as other games) can also be restricted through the **Software Rating** item in Parental Controls.
- ◆ Refer to your Operations Manual for information on how to set up Parental Controls.
- Internet Browser  
Restricts the ability to launch the Internet browser.
- Sharing Images / Audio / Video / Long Text Data  
Restricts the sending and receiving of photos and the use of Game Chat.
- Viewing Distributed Videos  
Restricts viewing of distributed in-game videos to those suitable for all ages.

## Welcome to Butterfly: Inchworm Animation II

Welcome to **Butterfly:Inchworm Animation II** - the full-featured animation studio that fits in your hand! Like its predecessor, the acclaimed **Inchworm Animation**, **Butterfly** allows you to create exciting animated movies on your Nintendo 3DS system. What's more, **Butterfly** expands upon **Inchworm's** capabilities in many ways.

**Butterfly** is a powerful and complex application -- we hope you take the time to read this manual and familiarize yourself with the program's many features.

However, if you just want to get started immediately, tap **Introduction** from the title screen. A series of introductory slides will explain the program's basic controls.

The first time you launch **Butterfly**, you must start with the **Introduction**. Thereafter, if you already know your way around (or have no patience for documentation), simply tap **Start** from the title screen to begin animating!

### Long live hand-drawn animation!

Traditionally, animation is created by drawing a series of related images. When displayed rapidly in sequence, they create the illusion of motion. But you already knew that, right?

Today most animation is created differently, using 3D geometric models and complicated software. The old hand-drawn approach is becoming a lost art. We here at Flat Black Films aim to forestall that sad eventuality with fun, thoughtfully designed creative tools like the one here in your hand -- **Butterfly**!

Using the stylus of your Nintendo 3DS system, you can draw frame-by-frame animation just like Walt Disney! (Though it may take some practice :)

To aid you in this quest, **Butterfly** gives you the essential tools of the animator trade. **Onionskin**, for example, enables you to see through your current drawing to the one beneath. The **Line** brush allows you to draw lines of varying width and transparency. With the **Shape** brush you can paint using circles, triangles, and rectangles. Or design a custom brush pattern and "stamp" it all over the canvas with the **Stamp** brush. In total, there are eight customizable drawing tools with which you can experiment.

**Butterfly** also boasts some features that old Walt never imagined. For example, you can draw on your movie as it plays! The **live-painting** feature lets you easily create fantastic moving effects that would be quite difficult to produce frame-by-frame.

Use **layers** to keep the elements of your scene separated. This is useful in many situations -- for example, old cartoons always have moving characters on a painted background. In **Butterfly**, you do this by placing the background on a layer with one cel. Your character goes on top, in a layer with multiple cels.

**Layers** also allow you to take advantage of the Nintendo 3DS system's stereoscopic 3D effect. The layers of your scene appear to recede in depth, like a set of backdrops in a stage play! You can adjust the layer depths to achieve just the effect you want.

The **timeline** is a special screen which gives you complete control over your drawings and layers. Place special markers called **keyframes** on the timeline to choreograph the display of your drawings.

For example, you might want to display a single image as a title screen, then loop another set of drawings for awhile, then fade out. Or perhaps you want one layer to display its images at a different frame rate than another. **Keyframes** and the **timeline** let you do this easily. From the **timeline** you can also add sound effects to your movie.

Oh, didn't we mention sound? Especially exciting is the ability to add audio and video to your animated movies! With the built-in camera, shoot **video** and then draw directly on top of it. Perform **stop-motion** animation and **time-lapse** photography. Record your own sound effects with the microphone. **Butterfly** gives you the capability to do all of these things to make truly stunning miniature movies.

Finally, share your masterpieces with the world through the **Butterfly online gallery**. Upload your artwork so that other users can view, rate, and comment upon it. Browse the gallery to check out amazing animation being created around the world with **Butterfly**!

This manual contains extensive documentation of **Butterfly's** many features. However, if you have any questions, feel free to contact us at this email address:

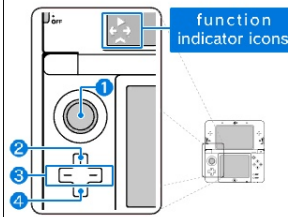
[support@butterflyanimation.com](mailto:support@butterflyanimation.com)

We hope you enjoy **Butterfly:Inchworm Animation II** as much as we enjoyed making it for you!

Bob Sabiston  
Flat Black Films

## Left-Side Control Map

These are the button functions for the +Control Pad (⊕) and the Circle Pad (⊙).



1 Color Wheel or Brush Menu	
2 Play / Pause	
3 Step Forward / Backward	
4 Over / Under Drawing	

## 1 Color Wheel or Brush Menu

When the Brush Menu is open, the Circle Pad (⊙) is used to change brush settings. See the "Brushes Overview" page for more information.

When the Brush Menu is closed, the Circle Pad is customizable. By default it opens the **Color Wheel**, allowing you to change colors as you draw. But you can change this function in the Options.

The Line and Mop brushes also allow you to configure the Circle Pad to perform a "drift" action during live-painting. Set this option in the Brush Menu for each tool.

The current color is indicated by the color of the function indicator icons on the top screen.

## ⊕ ⊙ +Control Pad functions ⊕

The icons in the bottom left corner of the top screen correspond to the four directions of the +Control Pad (⊕). They provide valuable feedback about the function of these buttons:

⏪: Animation is **playing**. Press ⊕ to pause it.

▶: Animation is **paused**. Press ⊕ to resume playback.

➡: Indicates that ⊕ steps **forward** to next frame in the timeline.

⬅: Indicates that ⊕ steps **backward** to the previous frame in the timeline. When the animation is playing, this icon changes to ⏪. This means that pressing ⊕ rewinds to frame 0 and continues playback.

TIP: You can choose to have the ⊕ buttons jump between layer cells rather than timeline frames. See the Main Menu Option screen's 'Cel-step' setting for more information.

⤴: Indicates **OVERDRAW**. This means that your brushstrokes are layered on top of one another as you draw. Most paint programs work this way - after all, it is the way real paint works!

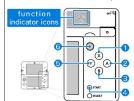
In computer graphics, however, it is sometimes desirable to work the other way -- you would like each brushstroke to fall underneath the existing artwork.

Use **UNDERDRAW** for this. Pressing ⊕ toggles the icon to ⤵. Then your brushstrokes are drawn underneath any artwork in the current layer, instead of on top. Try it -- it's fun! This feature is especially useful when rotoscoping or doing live-painting.

## Controls (Right Side)

### Brush-Side Control Map

This diagram illustrates functions for the buttons on the right side of the device. (Note that the C-Stick functionality can be duplicated on an original Nintendo 3DS system using the Circle Pad Pro attachment.)



1	Brush Menu	
2	Tool Chooser	
3	Undo	
4	Main Menu	
5	Timeline	
6	Color Wheel	

### Function Indicator Icons

The icons at the bottom right corner of the top screen correspond to the A, B, X and Y Buttons below them. The icons provide valuable information about the function of these buttons.

The top icon indicates which brush is currently selected. Select a brush using the Tool Chooser (2). Here are the brushes and their icons:

	LINE		SELECT
	SHAPE		FILL
	STAMP		POLYGON
	MAP		WAND

The icon is also meant to remind you that pressing the (3) Button opens and closes the Brush Menu, where you can configure the individual settings of the selected brush.

(4) indicates that pressing (4) opens and closes the TOOL CHOOSER. See the Tool Chooser section for information about its features.

(5) indicates that pressing (5) opens and closes the TIMELINE. See the Timeline section for information about its features.

(3) This is the UNDO indicator. See the Undo section for more details.

### Brush Menu

Butterfly has eight different brush tools, and most of them are highly customizable!

Customize the current brush with the Brush Menu - open it by pressing (3).

On the top screen you will see a list of all the attributes for the selected brush. Scroll through the list with (D) and (L). Change the selected attribute's value with (R) and (A). Explanatory text describing the attribute scrolls across the screen.

Two windows to the right of the Brush Menu illustrate how the modified brush behaves when you use it. The top window shows the brush in use on a still frame. The bottom window shows the brush in motion.

Press (3) again to close the Brush Menu.

See the Brush Menu section for in-depth documentation of Brush Menu settings.

### Tool Chooser

The (2) Button opens and closes the Tool Chooser. Use this screen to change brush tools. There are eight:

Line - Shape - Stamp - Map - Select - Fill - Polygon - Wand

Most of these brushes are customizable - they have settings which you can tweak to create countless specific effects. You can save your favorites using brush presets. The presets are accessible from the drop-down menu at the top of the Tool Chooser screen.

The lower half of the Tool Chooser contains some useful tools for painting and animation:

- (Z) Hand
- (+) Zoom In
- (-) Zoom Out
- (S) Safety Draw
- (T) Tooltips

Each of these is described in detail in the Tool Chooser section. For now, just remember that the (T) Tooltips icon provides an easy reminder about the functions on this screen. Hold the stylus on this icon and then slide to any other area onscreen to get more information.

### Undo

If the UNDO indicator (3) is solid, then your last action can be undone by pressing the (3) Button. If you make a drawing mistake or delete something you shouldn't have, press (3) and you can reverse one step.

If the icon (3) is translucent, then no undo is available.

Don't remember your last action? Open the Main Menu and check the top screen. Information about the current Undo action is shown there!

Also, please note that you cannot undo live-painting. Please use the Tool Chooser's Safety-Draw function for a means of painting across multiple frames without irreversibly wrecking your masterpiece with a hideous mistake!

### Main Menu

The (4) Button opens and closes the Main Menu. From the Main Menu you can:

- save and load files
- access the Camera
- record and edit Audio
- generate Sound Effects
- get Help
- start a New file
- export to the SD card
- change program Options
- import from and export to Camera Application

See the Main Menu section for detailed information about these options.

### Timeline

The (5) Button opens and closes the Timeline. The Timeline is the nerve center of Butterfly. Use it to configure the layer structure of your animation and piece sounds in the soundtrack. You can also make action keyframes to perform special timing tricks. See the Timeline section to learn all about the features of this screen.

Like the Tool Chooser, the Timeline has a special icon to help you remember its functions. Place the stylus on the (5) icon and then slide to any other area on the screen to get more information.

### Color Wheel

The C-Stick's function is customizable. By default, it opens the Color Wheel, just like the Circle Pad. But you can change it to perform a zoom, allowing you to magnify or shrink the canvas. You can also change it to perform a pan, allowing you to move the canvas around on the screen. Change the C-Stick's function on the Options screen.

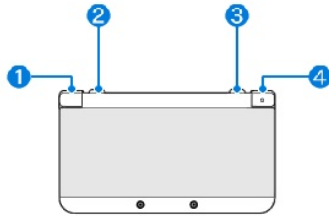
Note that the C-Stick can also be used to perform Brush Menu navigation instead of the default Circle Pad. Use the "Brush Menu Control" setting on the Options screen.

Note: If you are using an original Nintendo 3DS system, the optional Circle Pad Pro attachment substitutes for the behavior of the C-Stick.

## Shoulder Buttons Control Map

This diagram illustrates the functions of the shoulder buttons.

Note that the **ZL** and **ZR** Buttons simply reproduce the **L** and **R** Button functions, but on opposite sides. This **ZL** and **ZR** Button functionality can be duplicated on an original Nintendo 3DS system using the Circle Pad Pro attachment.




1 Color Palette	<b>L</b>
2 Zoom / Pan	<b>ZL</b>
3 Color Palette	<b>ZR</b>
4 Zoom / Pan	<b>R</b>

**1 3** **L** Color Palette


Butterfly gives you two ways to select colors. You can use the Circle Pad to open the Color Wheel and change colors as you draw, or you can access the more substantial **Color Palette** by holding the **L** Button (or **ZR** Button).


The Color Palette has these features:

- Hue panel
- Saturation panel
- Value panel
- change Background Color
- blend colors with the Mixer panel
- pick colors with the Eyedropper 
- store 45 favorite color Swatches


See the Color Palette section for in-depth documentation of these features.

**2 4** **R** Zoom / Pan

The **R** Button (or **ZL** Button) allows you to quickly **zoom** and **pan** the canvas. With the button held down, slide the Circle Pad () to move the canvas. You can also use the stylus to slide the canvas.

Press up or down on the +Control Pad () in this mode to zoom into or out of the scene.





You can also zoom by using the magnifying glass icons from the Tool Chooser.

Reset the canvas scale and position with the Tool Chooser's Pan / Zoom Reset icon ()



## Brushes Overview

Brushes are the tools with which you create and modify animation in Butterfly.

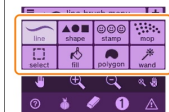
Some of these, like the Line brush , recall traditional paintbrushes. Other brushes, like the Mop brush , are designed for live-painting -- that's when you draw across all the frames of your entire looping animation as it plays. Then there is the Select tool , which performs editing functions. And the Wand tool  -- it applies effects to your existing artwork.

There are eight brush tools, but by adjusting the settings for each one you can achieve an impressive variety of effects. For example, the Line brush can be made thicker, fuzzier, or more transparent. The Shape brushes can be given outlines and made to rotate as you draw. There are myriad possibilities for the Mop brush, which launches particles in patterns configurable through its settings.









This page describes how to select a brush, open its Brush Menu, and change the settings. It also describes Presets -- they enable you to save and restore your favorite brush configurations. The following pages describe each brush tool in detail.

### Select a Brush

The eight brushes appear in the top half of the Tool Chooser, which opens and closes with the  Button.




The selected brush is highlighted -- it's the one you are currently using. Briefly, here is the function of each brush:

-  Line: draws lines
-  Shape: draws circles, rectangles, or triangles
-  Stamp: draws a pre-made image
-  Mop: draws with moving particles
-  Select: modifies an area of the screen
-  Fill: fills an area with color
-  Poly: draws enclosed, filled shapes
-  Wand: applies effects

Simply tap on a brush symbol to select it. Select presets by using the drop-down menu at the top of the screen (described in the Presets section below.)

### Using the Brush Menu

The power of brushes lies in their flexibility. Each brush has settings, or attributes, which you can modify to change its functionality and appearance.

To change brush attributes, open the Brush Menu by pressing the  Button. The top screen displays the settings available for the currently-selected brush. These settings are different for each brush type. The two windows on the right display the brush with its current settings. The upper window shows a still frame. The lower window shows the brush on a moving canvas.



Change attributes by sliding up or down on the Circle Pad to select a setting. Then slide left or right to change the selected attribute's value.

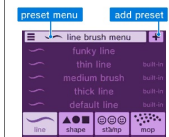
Watch these windows to observe the effect of changing various attributes.

You can change the control used to operate the Brush Menu. On the Options screen, you can choose to use the +Control Pad, the Circle Pad, or the C-Stick (or the Right Circle Pad for original Nintendo 3DS systems equipped with the Circle Pad Pro.)

### Presets

Presets allow you to instantly recall your favorite brush configurations. Most brushes already have several built-in presets, but you can create your own. If you find a combination of settings that you really like, save it!

Choose a preset from the Tool Chooser by holding the stylus on the preset menu at the top of the screen. A list of available presets appears. Slide the stylus downward to select one. Once you've loaded a preset, you can further refine the brush settings from the Brush Menu.




You can save the current brush configuration using the "add preset" button on the Tool Chooser. Tap the "+" that appears to the right of the preset menu. Give the new preset a name and you'll be able to choose it from the presets menu whenever you want to use that brush style again!

If you need to delete a preset, slide the stylus over the "X" icon to the right of the preset in the list.


The following pages document the settings available for each brush type. Review them or just play around with the settings in the Brush Menu to see what they do!

**Line Brush Overview**

The Line brush (—) is the tool you'll probably use most often. Its settings allow for a huge variety of drawing styles. On still frames it functions as a traditional line drawing tool. In motion, however, it becomes a flowing snake-like shape that you can use to create cool patterns and dynamic animation.

As with all of the brush tools, you select the Line brush via the Tool Chooser, which opens and closes with the  Button.

** Line Brush Settings**

In order to change brush attributes, open the Brush Menu by pressing the  Button.

Review the Brushes Overview page if you need to know how to change settings with the Circle Pad, C-Stick, or +Control Pad.

**Opacity**

Opacity is another word to describe the translucency of something. When opacity is 1.0, the line is completely solid. At 0.0 it becomes transparent. Set it somewhere in the middle for partial transparency.

Using Opacity is a great way to achieve a watercolor effect!

**Size**

Size refers to the thickness of your line. Set it near 0 for a very thin line. You can go all the way up to 60 for a line that nearly fills the screen.

**Growth**

Growth is related to size, but it determines how the line thickness changes over time, as you draw. By default, this setting is NONE -- the size does not change as you draw. If you change the Growth to THICKER, then the width of your brushstroke will increase with the speed of your drawing. Set Growth to THINNER for the opposite effect -- your brush starts at the current size and becomes thinner as you draw more quickly.

Setting Growth to THICKER or THINNER unlocks the next setting, **amount**. The amount value determines just how fast your line width changes. A value close to zero gives you a line which barely changes. A large value causes the line thickness to change quite rapidly.

**Smoothing**

If you find that your lines are too wiggly, use the **Smoothing** setting to filter them as you draw. A value of 0 means no smoothing is applied to your line. A value of 1 applies the maximum amount of smoothing. Be aware that using smoothing slows your drawing speed.

**Fuzz**

Fuzz makes your line appear soft or even blurry along the edges. A small amount of fuzz is needed to prevent your lines from appearing jaggy. Increase the amount to draw lines with softer edges.

**Length**

The **Length** setting is only used when you are live-painting -- in other words, drawing while the animation is playing. A small value will give you short segments or dot shapes. A long value results in a streaming, snake-like shape.

Change the Circle Pad function to DRIFT to create trippy streamer effects with long moving lines!

**Circle Pad**

The **Circle Pad** setting determines what function the Circle Pad performs as you draw:

- **COLOR**: the Circle Pad opens the Color Wheel so that you can change the line color as you draw.
- **DRIFT**: your line floats away in the direction indicated by the Circle Pad. Note that this only works when live-drawing. When drawing on a paused frame, the Circle Pad always displays the Wheel Palette.

**Grid**

The **Grid** setting appears on several of the brush menus. Turn it ON to restrict your stylus input to points on a grid. With the Line Brush, this effect is probably not very useful -- your lines will jump from point to point with sharp diagonals connecting them. However, with the Shape, Stamp, and Mop brushes, the grid can be extremely effective for creating cool effects. See the sections for those tools for more information on the Grid setting.

## Shape Brush

### Shape Brush Overview

The Shape brush (▲●■) allows you to draw with geometric shapes: triangles, circles, and rectangles. This brush has limited use on still frames, but in motion it can create some truly stunning effects.

As with all of the brush tools, you select the Shape brush via the Tool Chooser, which opens and closes with the **Q** Button.

### Shape Brush Settings

In order to change brush attributes, open the Brush Menu by pressing the **Q** Button.

Review the Brushes Overview page if you need to know how to change settings with the Curlicue Pad, C-Slek, or <Control Pad.

### Shape

The Shape setting selects a geometric primitive for drawing. You can choose CIRCLE, BOX, or TRIANGLE.

Note that you can squash or stretch the shape of these primitives using the Aspect setting (see below).

### Opacity

Opacity is another word to describe the translucency of something. When opacity is 1.0, the shape is completely solid. At 0.0 becomes transparent. Set it somewhere in the middle for partial transparency.

Note that the shape border has a separate setting for its opacity.

### Size

Use the Size setting to change the size of the shape. If you want the shape to get larger or smaller as you draw, use the 'Growth' setting.

### Aspect

Aspect ratio is the relation of a shape's width to its height. Use this setting to stretch or squash the shape brush. You can create oval with the circle shape, rectangles with the box, and differently shaped triangles.

An Aspect value greater than 1 squeezes the shape so that it is tall and thin. A value less than 1 squeezes the shape so that it is short and wide.

### Corners

Brush shapes have slightly rounded corners by default. You can change the roundness with this setting. Set Corners to 0 for sharp corners. Set it to 1 for more rounded corners.

### Growth

Growth determines how the brush size changes as you draw. By default, this setting is NONE -- the size remains constant. If you change Growth to THICKER, then the shape size will increase with the speed of your drawing. Set Growth to THINNER for the opposite effect -- the brush starts at the current size and becomes smaller as you draw more quickly.

Setting Growth to THICKER or THINNER overrides the next setting: amount. The amount value determines just how much the shape size changes. A value close to zero gives you a shape which barely changes. A large value causes the brush size to change rapidly.

### Smoothing

If your shape brushstrokes wiggle too much, use the Smoothing setting to filter them as you draw. A value of 0 means no smoothing is applied to your stroke. A value of 1 applies the maximum amount of smoothing. Be aware that smoothing decreases your drawing speed.

### Rotation

You can change the rotation of the brush shape with the Rotation attribute. The FIXED setting means that the rotation does not change as you draw. Use the value sub-setting to change the angle.

Set Rotation to TURN if you want the shape to spin as you draw. This is especially effective when live-painting, but it can also create cool patterns on still frames. In TURN mode the 'value' sub-setting adjusts the speed of rotation.

The PATH setting causes the shape to adjust its rotation to follow your brushstroke. The shape orients to the direction of your drawing. In PATH mode the 'value' sub-setting adds an additional fixed offset to the rotation angle.

### Border

Brush shapes can be outlined with a color. The Border attribute and its sub-settings control the appearance of the shape border.

The actual Border value specifies the outline thickness. Set it to 0 for no border, or go all the way up to 40 for a ridiculously thick border.

The Border color value controls the color of the outline.

- DARKER specifies that the border be a darker shade of the primary shape color. This means that as you change the brush color, the border changes to match it.

- Similarly, LIGHTER specifies that the border be a lighter tint of the primary shape color.

- Use CUSTOM to set a specific color for the border. It does not change as you change the primary shape color.

With CUSTOM selected, use the **U** button or the **D** button to select a border color.

The Border color attribute has two sub-settings. For LIGHTER and DARKER, the amount setting controls just how much lighter or darker the border becomes. For the CUSTOM setting, amount does nothing.

The Border opacity sub-setting controls the translucency of the shape outline.

Finally, the Border bleed setting allows the outline color to seep into the main body of the shape. Use this if you do not want a sharp boundary between the shape fill color and border color.

### Fuzz

Fuzz is used to make a shape appear soft or even blurry along its edge. A small amount of fuzz is needed to keep the shape from appearing jagged. Increase the amount to draw shapes with softer edges.

### Shadow

Shapes can be given an automatic Shadow effect. Set this value to 0 for no shadow, or increase it to specify the shadow size.

In addition, you can set these shadow characteristics:

- fuzz: the softness of the shadow
- color: the color of the shadow
- opacity: the translucency of the shadow
- X offset: the shadow's horizontal displacement
- Y offset: the shadow's vertical displacement

### Grid

The Grid setting appears on several of the brush tool menus. Turn it ON to restrict your stylus input to points on a grid. With the Shape Brush, this setting is great for creating grid-based patterns.

The Grid attribute has the following sub-settings, accessible when the Grid is ON:


- Grid H: the horizontal spacing of the grid points.
- Grid V: the vertical spacing of the grid points.
- Grid X: the horizontal offset of the grid points. Change this to slide the grid left and right.
- Grid Y: the vertical offset of the grid points. Change this to slide the grid up and down.

## Stamp Brush

### Stamp Brush Overview

The Stamp brush  allows you to paint with any drawn images called "stamps". As you slice the stylus, the brush image is repeatedly "rubber-stamped" along the path of your locomotion.

A few sample stamps are provided as examples, but it's more fun to make your own. Tap the "Make New Stamp" button to learn how to create your own stamp images.

As with all of the brush tools, you select the Stamp brush via the Tool Chooser, which opens and closes with the  button.

### Choose a Stamp

Choose a stamp using the brush preset menu at the top of the Tool Chooser screen. All of your saved stamps appear in a scrollable list, along with the built-in ones.



If you need to delete a stamp, slide the stylus over the "X" icon to the right of the stamp's entry in the list.

### Make New Stamps

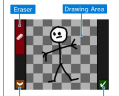
It's easy to draw your own stamps. First make sure that the Stamp brush is selected. Then tap the "+" symbol in the upper right-hand corner of the Tool Chooser. With other brushes the icon is used to create presets, but with the Stamp brush you use it to make new stamps.

After tapping the "+" icon, you will see this screen:



Tap "Draw new stamp" to start a brand-new stamp, or choose "Modify current stamp" if you want to modify a copy of the currently-selected stamp (the current stamp itself will be unaffected). Choosing the "New stamp from clipboard" option will use the artwork in the clipboard as material for the new stamp. (Place artwork in the clipboard with the Select tool's "Cut" or "Copy" commands.)

You'll see a screen like the one below. Draw in the checkered area to create the stamp. The Line brush is automatically selected for drawing -- it is the only brush you can use when creating stamps. You can change the line characteristics using the brush menu displayed on the top screen.



When making a stamp, you cannot access the Tool Chooser, and the  Control Pad is used to operate the Brush Menu. For this reason, separate Erase and Underdraw icons appear onscreen.

Tap the Erase icon  if you need to erase (or press  to undo).

Tap the Underdraw icon  to toggle between Underdraw and Overdraw modes.

Use white for any areas that you will want to match the current color when you're drawing with the stamp. (Black will always be black, and other colors will be tinted with the current color.)

When you are finished, or if you want to abandon the stamp, tap the checkmark icon . You are given the choice to keep the stamp, forget it, or return to making the stamp.


If you keep the stamp, you are asked to give it a name. The stamp is then available from the drop-down "stamp brush menu" at the top of the Tool Chooser.

Stamps can include many colors, but they are also linked with the currently chosen color. Therefore, use white for any parts of your stamp that you will want to match the current color when painting.

If you want to use a stamp with its original colors unaltered, select white as your current color when creating.

### Stamp Brush Settings

In order to change brush attributes, open the Brush Menu by pressing the  button.

Review the Brushes Overview page if you need to know how to change settings with the Control Pad, -Click, or -Control Pad.

#### Opacity

Opacity is another word to describe the transparency of something. When Opacity is 1, the stamp is completely solid. At 0.0 it becomes transparent. Set it somewhere in the middle for partial transparency.

#### Size

Use the Size setting to change the size of the stamp. If you want the stamp to get larger or smaller as you draw, use the "Growth" setting.

#### Aspect

Aspect ratio is the relation of a stamp's width to its height. Use the setting to stretch or squash the stamp image.

An Aspect value greater than 1 stretches the stamp so that it is tall and thin. A value less than 1 squashes the stamp so that it is short and wide.

#### Growth

Growth determines how the stamp changes size as you draw. By default the setting is NONE -- the size remains constant. If you change Growth to THICKER, then the stamp size increases with the speed of your drawing. Set Growth to THINNER for the opposite effect -- your brush starts at the current size and becomes smaller as you draw more slowly.

Setting Growth to THICKER or THINNER affects the final setting amount. The amount value decreases and how much the stamp size changes. A value close to zero gives you a stamp which barely changes. A large value causes the stamp size to change readily.

#### Smoothing

If your stamps wiggle too much, use the Smoothing setting to filter them as you draw. A value of 0 means no smoothing is applied to your stroke. A value of 1 applies the maximum amount of smoothing. The more that smoothing slows your drawing speed.

#### Rotation

You can change the rotation of the stamp brush with the Rotation attribute. The FIXED setting means that the rotation does not change as you draw. Use the Rotation value sub-setting to change the angle.

Set Rotation to TURN if you want the stamp to spin as you draw. This is especially effective when live-painting, but it can also create cool patterns on still frames. In TURN mode the "value" sub-setting adjusts the speed of rotation.

The PATH setting causes the stamp to adjust its rotation to follow your brushstroke. The stamp aligns to the direction of your drawing. In PATH mode the "value" sub-setting adds an additional fixed offset to the rotation angle.

#### Grid

The Grid setting appears on several of the drawing tool menus. Turn it ON to restrict your stylus input to points on a grid. With the Stamp brush, this setting is great for creating grid-based patterns.

The Grid attribute has the following sub-settings, accessible when the Grid is ON.

- Grid W: the horizontal spacing of the grid points.
- Grid H: the vertical spacing of the grid points.
- Grid A: the horizontal offset of the grid points. Change this to slide the grid left and right.
- Grid T: the horizontal offset of the grid points. Change this to slide the grid up and down.

## 12 Mop Brush

### Mop Brush Overview

The Mop brush (3W) produces stunning particle effects. As you draw, hundreds of little dots stream out like fireworks from beneath the tip of your stylus!

A large number of attributes make this a fun brush for experimentation. You don't need to understand all of them, however -- just play around and see how they change the brush.

As with all of the brush tools, you select the Mop brush via the Tool Chooser, which opens and closes with the **Q** button.

### Mop Brush Settings

In order to change brush attributes, open the Brush Menu by pressing the **Q** button.

Review the Brushes Overview page if you need to know how to change settings with the Circle Pad, C-Stick, or «Control Pad.

### Length

The Mop brush operates by launching streams of particles from the tip of your stylus. The Length attribute determines how long those particles remain onscreen. A short value means that each particle disappears almost immediately. A larger value means that they stick around for a longer time.

### Shot Timing

Shot Timing determines how often new particles are generated. Set it to 0 to generate new particles on every frame. Larger values specify how many frames to wait before launching a new particle.

### Spread

Spread controls the speed at which particles are fired. Larger values mean the particles move faster and travel farther before they disappear. The overall effect of this is to make the cloud of particles appear larger or smaller, depending on the Spread value.

### Num Bristles

The Mop brush consists of several particle streams firing simultaneously and in different directions. These streams are called Bristles. More bristles mean more particles and hence a fuller look. You can have as few as one bristle or as many as twelve.

Each bristle has a direction in which it fires particles. Normally bristles are spaced evenly around the brush circumference. However, the placement and orientation of the bristles can be altered with the 'Spiral' and 'Turn' settings, described below.

### Gravity

Gravity causes particles to drift back toward the stylus tip. The value determines the strength of this effect -- set it to 1.0 for the strongest gravity and 0.0 for no gravity.

### Even Thrust

Particles are fired from the Mop brush with a certain velocity. With Even Thrust ON, all particles are fired with constant velocity. With it OFF, the particle velocity is random. Use the ON setting if you want a more geometric, orderly brush. The OFF setting results in a more natural, scattered appearance.

### Shrink

Turn Shrink ON to give the particles psychological counseling. Kidding! With this setting ON, the particles become smaller over time. With this setting OFF, the particles remain a constant size.

### Fade

The Fade attribute's OUF setting causes particles to disappear over time. Fade IN causes them to launch transparently and become opaque as they travel. Turn Fade OFF to have the particles remain a constant opacity.

### Spin

The Twist setting applies an additional rotation to that provided by the 'Rotation' attribute (see 'Particle Shape Settings' below).

Combine this setting with the FIXED or PATH Rotation setting to give particles an additional spin.

### Spiral

The Spiral attribute affects how particles are shot from the bristles. There are three settings:

- OFF: particles shoot from the center of the brush with the same velocity.

- EVEN: particles shoot from the center, but each bristle shoots with increasing velocity. (Because this is most effective when paired with the 'Turn' attribute, Turn is set to MARCH when you select this mode.) This results in a spiral effect which is most visible with the stylus in a stationary position.

- ROUGH: In addition to shooting from each bristle with increasing velocity, particles start at a random distance from the brush center. The overall effect is more disordered than EVEN mode.

### Turn

The Turn attribute affects bristle placement. There are four settings.

- OFF: bristles have a fixed position around the brush and fire away from the center.

- MARCH: with every frame, each bristle rotates to take the place of the next one. This setting is used with the Spiral attribute to give the Mop Brush a turning effect.

- REVOLVE: the bristles rotate by two degrees each frame. This causes the brush to turn slowly as you draw.

- RANDOM: the bristles rotate a random amount each frame. This gives the brush an erratic appearance.

### Circle Pad

The Circle Pad setting determines what function the Circle Pad performs as you draw.

- COLOR: the Circle Pad opens the color wheel so that you can change the brush color as you draw.

- DRIFT: particles float in the direction indicated by the Circle Pad.

### Render

The Render setting affects how the particles are drawn. ADD mode draws the particles separately, their outlines individually distinguishable. In MIX mode, particle centers blend together and the outlines only appear at the fringes. The brush has a more solid, cohesive look.

### Particle Shape Settings

Each particle is essentially a miniature Shape brush. All of the Shape brush attributes are also available for particles. This means you can have triangular particles, particles with borders, shadows, etc! The settings that appear in orange at the bottom of the Mop Brush menu are the same as the Shape brush settings. See the Shape brush page for their documentation.

## 13 Select Tool

### Select Tool Overview

The Select tool is not really a brush -- rather, it is a tool you use to isolate and modify areas of the canvas. It has two modes -- RECTANGLE (◻) and LASSO (Ⓞ). RECTANGLE allows you to select a box-shaped area of the canvas. Lasso allows you to select an arbitrary area of the screen by drawing freehand.

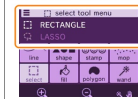
The Select tool is used to perform two functions -- masking and editing. They are described in separate sections below.

Like every other brush, the Select tool operates only upon the current layer. However, the selection area remains active if you switch layers, so it is easy to cut and paste or use the same mask between layers.

The Select tool has no brush menu. With it selected, pressing Ⓞ will notify you of this fact.

As with all of the brush tools, you select the Select tool via the Tool Chooser, which opens and closes with the Ⓞ Button.

The Select tool does not have presets -- instead, you use the dropdown menu to select between RECTANGLE and LASSO modes.



### Rectangle Selection

◻ In Rectangle mode, sliding the stylus across the canvas produces a "marching-ants" style box which encloses an area of the screen.

After defining a box, you can move it with the stylus.

### Lasso Selection

Ⓞ In Lasso mode, define the selection area by drawing a freehand shape with the stylus. The area enclosed by the shape is the selection area.

Use the SELECT ALL button to select the entire canvas area.

Place the stylus in the center of the selected area and slide it around to move the entire selection.

This moves the selection only -- not the artwork. If you want to move the artwork, first cut and then paste the selection. Once pasted, the artwork and the selection can both be moved with the stylus.

### Masking

Masking is the process of restricting your drawing to a selected area. The name derives from surrounding an area of a drawing with masking tape so that you cannot draw beyond the enclosed edges. Graffiti artists also use masking when creating spray-painted artwork.

In Butterfly, masking happens automatically whenever you create a selection area. Any drawing you do with the other tools is restricted to the area defined by the selection.

This works even during live-painting. Simply outline an area with the Select tool, then choose another brush and start drawing. Your drawing appears only within the bounds of the selected area.

Once you are finished masking, tap the Deselect button to resume drawing to the entire screen.

### Editing

The term "Editing" applies to a number of operations you can perform on a selected area. These include COPY, CUT, PASTE, ROTATE, SCALE, FLIP, and ERASE.

Editing operations are performed on still frames only. You must pause playback to use these functions.

Choose editing operations from the Ⓞ menu that appears at the bottom right of the screen when the Select tool is active.

### Copy, Cut, and Paste

Copy, cut, and paste are common operations in almost any kind of software. As its name suggests, Copy makes a copy of the selected area. This copy does not appear on screen but rather is placed into an offscreen clipboard. Then you use the Paste command to place the clipboard contents onto the canvas.

Cut is similar to Copy, but the selected area is removed from the screen and placed into the clipboard. After cutting, use Paste to place new copies of the selection on the canvas.

Pasted artwork can be positioned simply by sliding it with the stylus. It can also be rotated, scaled or flipped (see below).

### Rotate

When you paste artwork, the ROTATE command is enabled in the Ⓞ menu. A new set of icons appears along the bottom of the screen:

- ⌚ Rotate 90 degrees counter-clockwise
- ⌚ Rotate counter-clockwise
- ⌚ Reset rotation
- ⌚ Rotate clockwise
- ⌚ Rotate 90 degrees clockwise

Tap ⌚ or ⌚ to rotate 90 degrees in either direction. Hold the stylus on ⌚ or ⌚ to rotate smoothly to the desired angle. Tap ⌚ to reset the rotation to zero.

### Scale

The SCALE command becomes available when you paste artwork to the canvas. A new set of icons appears along the bottom of the screen:

- ⬆ Scale up
- ⌚ Reset scale
- ⬇ Scale down

Hold the stylus on ⬆ or ⬇ to scale up or down. Tap ⌚ to reset the scale to 1.

### Flip

The FLIP command also becomes available when you paste artwork to the canvas. A new set of icons appears along the bottom of the screen:

- ↔ Flip horizontally
- ⌚ Reset flip
- ↕ Flip vertically

Tap the ↔ or ↕ icons to perform a flip. Tap ⌚ to reset the flip.

### Erase

Choose ERASE if you want to eliminate the artwork within the selected area, but you do not want to copy it.

### Fill Tool Overview

The Fill tool (🖌️) is used to fill areas of your artwork with the current color.

Once selected, use the Fill tool simply by tapping the canvas on the spot you want to fill.

There are two ways to fill.

In FLOOD mode, a single connected area is filled. Touch a spot on the screen and any neighboring pixels which match the touched color will change to the current color.

In REPLACE mode, it doesn't matter whether the pixels are connected or not. Any color on the screen which matches the touched color will change to the current color.

Note that fills happen only on the current layer. Make sure that the artwork you're trying to change resides on the current layer!

As with all of the brush tools, you select the Fill tool via the Tool Chooser, which opens and closes with the ⌘ Button.

### ⌘ Fill Tool Settings

In order to change brush attributes, open the Brush Menu by pressing the ⌘ Button.

Review the Brushes Overview page if you need to know how to change settings with the Circle Pad, C-Stick, or +Control Pad.

### Opacity

Opacity is another word to describe the translucency of something. When opacity is 1.0, the fill color is completely solid. At 0.0 it becomes transparent. Set it somewhere in the middle for partial transparency.

Fill an area with a partially opaque color to 'tint' the existing color with the new one.

TIP: If you choose the Eraser or set Opacity to 0.0, then the fill will actually erase the affected area. You can use this feature to perform a crude "chromakey" on video. Shoot something against a colored backdrop. Then use the fill tool to remove the background!

### Mode

In FLOOD mode, fills happen only within the contiguous area that you touch with the stylus. The fill will stop wherever it hits another color or the edge of the screen.

In REPLACE mode, tapping a color changes every other matching pixel onscreen (within the current layer), regardless of borders. Use this mode to change colors within an entire layer.

### Fuzz Fill

When you draw with Butterfly's "antialiased" lines and shapes, the edges of your artwork are smoothed to prevent jaggy pixels. This can be a problem, however, if you are trying to fill one color with another. When you fill, a little bit of the old color is left around the edges where it blends into another color.

Use Fuzz Fill to handle these soft-edged areas. Set Fuzz Fill to a value between 0 and 1 depending on how exactly you want to match the touched color. A value of 0 only fills colors exactly matching the touched color. A value of 1 fills a range of colors close to your selection. You may need to experiment, using Fill and Undo, to find the correct value for your situation.

**Polygon Tool Overview**

The Polygon tool (●) allows you to create arbitrary hand-drawn shapes. As with the Shape brush, polygons can be given outlines and shadows.

The Polygon tool is easy to use. Simply draw a shape. When you lift the stylus, the shape fills with the current color. The shape automatically includes any designated border or shadow effects.

The Polygon tool can only be used on still frames – you can't make polygons when live-painting. Playback will stop if you try to use the Polygon tool while playing.

As with all of the brush tools, you select the Polygon tool via the Tool Chooser, which opens and closes with the ⌘ Button.

**⌘ Polygon Tool Settings**

In order to change tool attributes, open the Brush Menu by pressing the ⌘ Button.

Review the Brushes Overview page if you need to know how to change settings with the Circle Pad, C-Stick, or +Control Pad.

The Polygon tool settings are described below.

**Opacity**

Opacity is another word to describe the translucency of something. When opacity is 1.0, the polygon is completely solid. At 0.0 it becomes transparent. Set it somewhere in the middle for partial transparency.

**Border**

Polygons can be outlined with a border color. The Border attribute and its sub-settings control the appearance of the polygon border.

The actual **Border** value controls the outline thickness. Set it to 0 for no border, or go all the way up to 40 for an extremely thick border.

The Border **color** attribute controls the color of the outline.

- **DARKER** specifies that the border be a darker shade of the main polygon color. This means that as you change the current color, the border changes to match it.
- Similarly, **LIGHTER** specifies that the border be a lighter tint of the main polygon color.
- Use **CUSTOM** to set a specific color for the border. It does not change as you change the main polygon color.

With **CUSTOM** selected, use the the ⌘ button or the ⌘ button to select a border color.

The Border color attribute has two sub-settings. For **LIGHTER** and **DARKER**, the **amount** sub-setting controls just how much lighter or darker the border becomes. For the **CUSTOM** setting, 'amount' does nothing.

The Border **opacity** sub-setting controls the translucency of the polygon outline.

**Smoothing**

If your polygon edges are too wiggly, use the **Smoothing** setting to filter them as you draw. A value of 0 means no smoothing is applied to your line. A value of 1 applies the maximum amount of smoothing. Be aware that smoothing reduces your drawing speed.

**Fuzz**

**Fuzz** causes a polygon to appear soft or even blurry along its edge. A small amount of fuzz is needed to keep the polygon from appearing jaggy. Increase the amount to draw polygons with softer edges.

**Shadow**

Polygons can be given a built-in shadow effect. Set this value to 0 for no shadow or increase it to specify the shadow size.

In addition, you can set these shadow characteristics:

- **fuzz**: the softness of the shadow
- **color**: the color of the shadow
- **opacity**: the translucency of the shadow
- **X offset**: the shadow's horizontal displacement
- **Y offset**: the shadow's vertical displacement

**Grid**

The **Grid** setting appears on many of the drawing tool menus. Turn it ON to restrict your stylus input to points on a grid. With the Polygon tool, this setting is probably not very useful, but you might get some interesting shapes from it.

The **Grid** attribute has the following sub-settings, accessible when the **Grid** is ON:


- **Grid W**: the horizontal spacing of the grid points.
- **Grid H**: the vertical spacing of the grid points.
- **Grid X**: the horizontal offset of the grid points. Change this to slide the grid left and right.
- **Grid Y**: the vertical offset of the grid points. Change this to slide the grid up and down.



### Wand Tool Overview


Apply special effects to your artwork with the **Wand** tool (✳). You can apply these effects to still frames and to moving artwork. There are four effects: **BLUR**, **BLEND**, **FADE**, and **MOSAIC**.

Some of the effects are processor intensive, so applying them may slow down playback. Normal playback speed resumes after the effect is applied.

As with all of the brush tools, you select the Wand tool via the Tool Chooser, which opens and closes with the  Button.

The Wand tool menu works a little differently than the other brush menus. The available attributes vary depending on the selection of the 'Effect' setting.

### Wand Tool Settings

In order to change brush attributes, open the Brush Menu by pressing the  Button.

Review the Brushes Overview page if you need to know how to change settings with the Circle Pad, C-Stick, or +Control Pad.

### BLUR

As its name suggests, the **Blur** effect simply blurs your artwork. The amount of blur is controlled by the **Radius** attribute. It ranges from 0 to 100 pixels.

The **Radius** attribute has two sub-settings, **X-Radius** and **Y-Radius**. It is possible to blur differently in the horizontal and vertical directions. Changing the **Radius** value sets X and Y simultaneously. Change the X and Y values individually if you want them to be different.

### MIX

The **Mix** effect allows you to create a sort of motion-blur between frames. It blends the current layer cel with the cel immediately before or after it.

The **Opacity** setting controls the amount of blending which occurs between the two cels.

Use the **Frame** setting to choose to combine with either the previous (PREV) or next (NEXT) layer cel.

### TINT

The **Tint** effect is similar to **Mix**, except that it blends the current frame with the current color instead of another frame.

Use **Opacity** to set the translucency of the color being blended.

**Cover** determines the effect of **Tint** on the layer's empty space. Set **Cover** to **NO** to leave empty space unaffected by **Tint**. Set **Cover** to **YES** to **Tint** the entire layer, including empty space.

### MOSAIC

The **Mosaic** effect reduces the apparent resolution of the layer cels. You can use this effect to create interesting transitions or to create graphics with a "retro" look.

It's unnecessary to understand the following technical mumbo-jumbo. Just play around with the settings and see if they create an effect that you like!

**Mosaic** works by first creating a low-resolution version of the current layer cel and then enlarging it to fill the screen. The **Mode** setting determines whether the cel is enlarged using sampling or scaling. **SAMPLE** creates a very hard-edged look using only colors sampled from the lower-resolution frame. **AVERAGE** is more blurry, recreating the larger frame by interpolating between pixels of the low-resolution one.

The **X-Size** and **Y-Size** settings allow you to apply the **Mosaic** effect differently in the horizontal and vertical directions. The values represent the number of pixels between point samples used to create the low-resolution frame.

See, I told you it was mumbo-jumbo!

## Other Tools


### Tool Chooser Overview


Although the Tool Chooser primarily allows you to select brushes, it also has a number of other important and useful functions.




This page describes the following tool:

- Hand
- Onionskin
- Zoom
- Eraser
- One-Pass
- Safety Draw
- Tooltips


Remember — the  button opens and closes the Tool Chooser.

If you need a reminder about the function of any Tool Chooser icon, use the . Simply touch the tooltip icon and slide the stylus to any other icon on the screen. A dialog appears on the top screen to provide you with more information.

### Hand

The Hand () tool is used to quickly adjust the placement of artwork on a cel. With the hand selected, just use the stylus to slide your artwork. Playback must be stopped to use the hand tool.

Note that with the hand tool, your artwork is truncated if it moves offscreen. If this is a problem, you may prefer to use the select tool to copy and paste your artwork — then it is saved in the copy buffer and can be moved freely.

Note also that this hand tool is different from the 'pan' operation you can do while using  in conjunction with the Circle Pad. Panning does not change any artwork — it simply slides the canvas around so that you can focus on different areas. The hand tool actually changes the placement of artwork within its cel.

### Onionskin

Onionskin () is one feature that no animation program can do without. Just as the animator of old used tracing paper to see through his stack of drawings, you use the onionskin feature to reference earlier (and later) animation cels.

With onionskin enabled, you're able to see the previous layer cel overlaid with the current one. For hand-drawn animation this is invaluable, because you can see just how much to move your character from frame to frame.



In Butterfly, onionskin has two modes. You can choose to see only the previous layer cel or also the following one. The former option is great for drawing a new animation sequence. The latter is useful when you are creating interbeats — new cels that smooth and stretch out the motion between two previously drawn "key" cels.

Simply tap the Onionskin icon to rotate through three modes:






- Onionskin Off
- Previous Cel Only
- Previous and Next Cel

You can change the colors and opacities used to display onionskinned cels. On the Options screen, you can set the previous and next frames to have different colors and opacity values. This can make it easier to distinguish between overlapping drawings.

### Zoom


  These icons allow you to zoom into and out of your artwork. Zoom in to do detail work. Zoom out when you need to draw all the way to the edges of the canvas. Simply hold the stylus on an icon to zoom to the desired amount.

- Zoom In
- Zoom Out

You can also change the zoom without opening the Tool Chooser. Hold the  Button or  Button to activate the ZoomIn/ZoomOut. With the button still held down, press up () or down () on the  Control Pad to zoom in and out.

  The small magnifying glass and hand icons represent the RESET ZOOM / PAN function. Tap these icons to reset the zoom and pan to normal.

### Eraser

The Eraser () is a vital tool for any artist's toolbox. Use it to eliminate artwork from the canvas.

The eraser works in conjunction with any of the drawing tools — Line, Shape, Stamp, Move, Fill, and Polygon. With the eraser enabled, these brushes erase instead of draw. The shape of the erased area corresponds to the shape of the selected brush. For example, erasing with the Line brush removes artwork in the shape of the line. Erasing with the shape tool creates circles, rectangles, or triangle-shaped holes in the canvas. It is just like drawing with those brushes, except that instead of adding artwork you are taking it away.

The eraser remembers which tool you last used to erase. By default, the Shape brush is used. When you select the eraser, that tool is selected automatically. You can change this selection if you like. When you deselect the eraser, the brush selection will return to what you were using before choosing the eraser.


### One-Pass

The One-Pass () tool is designed to help with live-painting. It has no effect when playback is paused or when you are drawing on a still frame.

When live-painting, however, the frames of your animation play in a continuous loop. As soon as you reach the last frame, drawing loops around to continue from the first frame. Normally this is fine and results in seamless, endless animation. But sometimes you want to paint a single pass through the loop without repeating.



For example, if you are tinting the animation with the Wind tool, you probably don't want the tint to loop around and become darker and darker with each pass. When you really fill the stylus, some frames will have been tinted more than others.

Turn on One-Pass to halt drawing automatically as soon as you make a single pass through the loop. When you begin a new brushstroke, the count begins again, recording each frame only once.

The One-Pass icon  appears on the top screen when drawing is active. It disappears once the loop pass has completed.

This is a great way to use live-painting while maintaining control over the number of brushstrokes applied to the canvas.

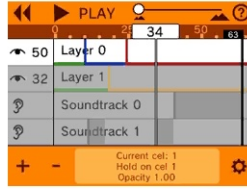
### Safety Draw

Use Safety Draw () if you are nervous about making a mistake on a carefully prepared drawing or animation. When playback is paused, you can always use Undo  to fix a mistake. However, when live-painting, your brushstrokes are applied to many frames at a time — it isn't possible to undo such a big change.


Safety Draw can protect your masterpiece from unpredictable live-painted brushstrokes. As you paint with Safety Draw enabled, your brush stroke is recorded but not actually applied to the canvas. Instead, when you lift the stylus you are asked if you want to keep the stroke. If you reply "Yes," the stroke is realized and recorded. Answer "No," and all is forgotten! Your precious artwork lives to fight another day.

Butterfly's **Timeline** serves several purposes. You use it to create and reorganize animation **layers**. You can assign cels to these layers and place **keyframes** describing how those cels are displayed.

The Timeline is also used to add sound to your movies. You do this by placing sound keyframes on special soundtrack layers. This section describes the Timeline and its associated functions.







Remember -- the  button opens and closes the Timeline.


If you ever need a reminder about the function of any Timeline feature, use the  Tooltips! Simply touch the tooltip icon with the stylus and slide it to any other area on the screen. A dialog appears on the top screen to provide more information.

#### Timeline Top Row Controls

These controls appear along the top of the Timeline:

-  Rewind
-  Play / Pause
-  Timeline Zoom
-  Tooltips


#### Rewind

The **Rewind**  button simply moves the frame counter back to frame zero. Use it to return immediately to the start of your animation.

#### Play / Pause



The **Play / Pause** button starts and stops animation playback.

Note that as long as the Brush Menu is not showing, you can also start and stop playback using the +Control Pad UP Button (.


#### Timeline Zoom



The **Timeline Zoom** slider adjusts the scale of the graph used to display layer and soundtrack keyframes. If you need to fine-tune keyframe placement, you might want to zoom into the timeline so that you can clearly see every frame. On the other hand, you can zoom all the way out in order to get the "big picture" of your animation.

Move the slider to the right to zoom in. Move it to the left to zoom back out.

#### Tooltips

The **Tooltip** icon () appears on several screens -- use it to obtain more information about the functions of the other tools in the Timeline. Simply touch the tooltip icon with the stylus. With the stylus held down, slide it to any other area on the screen. Dialog boxes appear on the top screen to provide more information.

### Layer Basics

The base of the drawing is the layer 0. It is a bit of the layer just underneath that controls your activation. Like the layers above, layers are stacked together to build a scene. In traditional animation, the first layer is usually a background painting. Animate characters are placed on top of that with additional levels of action, called tracks.



### Layers and Containers

In Retrospect, layers work the same way. The first layer is also the first to be displayed on top of the background of color. Each subsequent layer on top tracks over on top of the other. With over 2000 3D objects, these layers appear to march forward in space.

You can have up to 6 layers. Each layer operates independently. For example, one layer may be animated with a white line, another with a white line, and another with a white line. A layer will always end up for a white line on top. Each layer is a container for more details.

An important thing to realize is that each layer can hold a maximum of 100 cells. You can have as many as 100 cells in one layer, but you can't have 100 cells in each of 100 layers. For example, you can't have 5 layers each with 100 cells either; you could have 5 layers with 20 cells each adding up to 100. Or you can have 100 layers with 2 cells each and another with 2 cells. The only way distribute them is up to you.

### Layer Container

Along the top of the layer list, there are two buttons to let you toggle the visibility of the layer. The first is the 'eye' icon, which is used to toggle the layer's visibility. The second is the 'lock' icon, which is used to toggle the layer's lock status. This is done to prevent the layer from being edited while it is being used in a scene.

### Layer Properties

Whenever you add a layer to a scene or modification, the layer is created with a default name. You can change the name of the layer in the Layer Properties section of the main menu.

### Layer Frame Marker

The number in the left of the layer name indicates the number of cells in the frame. You can change the number of cells in the frame by clicking on the number. This is done to prevent the layer from being edited while it is being used in a scene.

You can also use the 'Frame' button to toggle the frame's visibility. The frame is colored based on the number of cells in each layer. The coloration accounts for any changes that may occur when you edit the frame. The 'Frame' button is used to toggle the frame's visibility.

### Accuracy of a Layer

Layers are listed vertically on the screen, and they are in the order they are in the scene. This is done to prevent the layer from being edited while it is being used in a scene.

### Layer Visibility

The number in the left of the layer name indicates whether the layer is currently visible or hidden.

### Layer Lock

The number in the left of the layer name indicates whether the layer is currently locked or unlocked.

### Layer Name

The name of the layer is displayed in the main menu.

### Layer Properties

The Layer Properties section of the main menu is used to edit the layer's properties.

### Layer Frame Marker

The number in the left of the layer name indicates the number of cells in the frame.

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## Layer Keyframes

This page describes how to create and use layer keyframes.

Keyframes are used to provide layers with special behaviors. For example, a layer can turn itself off and on, or it can display a simple cell for a period of time. Such behaviors are called Layer Actions.

In addition to layer actions, keyframes can be used to control a layer's opacity. Each keyframe has an opacity setting, which you can change to fade the layer in and out.

There are five layer actions you can use: **PLAY**, **HOLD**, **HIDE**, **LOOP**, and **PATTERN**.



### Keyframe Info Box

In the image above, Layer 2 has three keyframes. The vertical colored line indicates the frame at which the action begins. The specified action continues until another keyframe is encountered.

The keyframe color indicates which type of action it performs. In this case, a red HOLD keyframe is followed by a yellow HOLD keyframe and then a blue LOOP keyframe.

The box at bottom center of the Timeline in the Keyframes info box, it displays information about the currently active keyframe. In the image above, the current keyframe is a LOOP action which begins at cell 4 and ends through cell 10 cells. The layer opacity is 0.50.

When dealing with keyframes, it's important to know the distinction between a LAYER CELL and a TIMELINE FRAME. There is a cell in a single drawing, whereas a frame is a spot on the timeline where that drawing is shown. Thus the same cell can be shown on multiple frames.

Layers can contain between 1 and 100 cells. But because of keyframes, those cells are not necessarily played one after the other. For example, you may have a layer with only three cells. But you could create a keyframe to show each of them for 30 frames in a row. In that case the layer has three cells but 90 frames, because the cells are each shown 30 times.

Note: Soundtrack keyframes are different -- they are used to play sounds during your animation. See the Soundtracks section for more information on them.

## Create a Keyframe

Create keyframes with the Add Menu. Hold the status on the "I" at the lower left of the Timeline. A pop-up menu appears from which you can select ADD KEYFRAME.



### Add Menu

Note: If there is already a keyframe at the current frame when you open this menu, you are given the REPLACE KEYFRAME option instead.

The Action Selector then opens. On this screen you can choose between the available layer actions. On the right you can adjust the individual settings for the selected action.

## The Action Selector



Listed along the left side of the Action Selector are the five keyframe actions and their representative colors. The right panel allows settings for the chosen action. Choose the action you want and adjust the settings. The changes you make are reflected in the preview drawing on the top screen.

When you are happy with the settings, tap OK to place the keyframe.

## The PLAY keyframe

The PLAY action simply plays every layer cell in order, at a specified framerate. In fact, all layers default to this action -- they play all cells at 30 fps.

Use a PLAY keyframe if you want to play cells at a slower rate, or if you want to return to playing cells after a series of other keyframe actions.

Use the Back and Firth option if you want the layer cells to play forwards from the first cell to the last, and then backwards from the last cell to the first. Rather than repeating a forward loop to the end of the current cell and displaying back and forth across the layer range.

## The HOLD keyframe

The HOLD action is used to show a single cell for more than one frame. It's extremely useful when you don't want to waste frames displaying large, unreadable, or unneeded artwork that needs to remain onscreen for multiple frames.

## The HIDE keyframe

If you need a layer to disappear temporarily, use a HIDE action. When you want to reappearing the layer, use a PLAY or HOLD action.

The HIDE keyframe action has no settings since it only performs one simple function.

## The LOOP keyframe

Although layers already loop their cells by default, there may be times when you want to loop a subset of a layer's cells, or you want to loop at a different rate than 30 fps.

The LOOP action lets you choose a starting cell for the loop and the number of cells for its duration. You can also choose the framerate at which to loop the cells.

## The PATTERN keyframe

The PATTERN action displays the layer's cells in predetermined order. You can choose from three different patterns for cell display:

- **STUTTER**: this pattern displays a short series of cells that slowly advance through the entire range. The effect is a somewhat staccato motion. The "Size" slider determines the length of the series. The "Rate" slider determines the speed of cell display.
- **BACKWARD**: this pattern displays the layer's cells in backward order. The "Rate" slider determines the speed of cell display.
- **RANDOM**: this pattern displays the layer's cells in random order. The "Rate" slider determines the speed of cell display.

## Keyframe Opacity

At the bottom of the Action Selector is an OPACITY slider. This slider sets the layer opacity at the keyframe's location. By creating multiple keyframes with different opacity levels, you can fade a layer in and out.

As the timeline frame moves from one keyframe to the next, the opacity level of the layer changes smoothly between the two values specified by the keyframes. Using the OPACITY slider with layer keyframes makes it easy to add smooth fades to your animation!

## Moving Keyframes

If you need to move a keyframe, all you have to do is slide it with the pointer. Place the status square on the keyframe and then slide it left or right to reposition it. The keyframe moves on the timeline to meet exactly with the style, you may need to use the timeline zoom slider to enlarge them first.

Sometimes you may need to adjust the timing of your animation, and it is helpful to move multiple keyframes at once. If you hold the keyframe as a keyframe for one second without moving, a beep will sound and the entire scene following the keyframe will appear shaded pink. This means that you can now slide all of the shaded keyframes simultaneously.

## Delete a Keyframe

Delete a keyframe using the Delete Menu. First place the Frame Counter over the keyframe you wish to remove. (Make sure the correct layer is selected.) Place the status on the "I" at the lower left of the Timeline. A pop-up menu appears, from which you can select DELETE KEYFRAME.



## 21 Soundtracks

Bring your animation to life with sound! By using SOUNDTRACKS you can add sound effects and music to your movie. Butterfly includes a library of built-in sound effects ready-made to drop into your creations. Even better, you can record your own sound using the microphone! You can also produce a wide variety of effects with DPepper's SFAR generator.

Soundtracks are special areas of the Timeline devoted to audio. You can align sound effects with your animation frames precisely by placing soundtrack keyframes along the timeline.

Butterfly's two soundtracks enable you to use overlapping sounds. For example, you might want to have several sound effects play in conjunction with background music.

Here is a picture of a timeline with two soundtracks.



In the foundation above, Soundtrack 0 has three short keyframes, whereas Soundtrack 1 has only one. The duration is indicated by the length of the shaded area following the keyframe marker.

This page describes how to use existing sounds in the Timeline. It does not discuss creating your own audio.

You can learn about creating your own sounds in the Audio Recording and SFAR sections of the Main Menu documentation.

### Sound Selection Tools

Notice that when a soundtrack is selected, the bottom area of the screen differs from the same area when an animation clip is selected. These are the Sound Selection Tools. They allow you to select specific sound effects. You can also adjust the volume and pitch of a selected sound before you place it in the Timeline.

### Select a Sound

What's the first thing you need to do when adding sound to your movie? Decide what sound you're going to use!

The name of the currently selected sound effect is shown in the top row of the Sound Selection Tools. You can change this selection by simply tapping the name. Doing so opens the Sound Library.



[Tap here to select sounds](#)

The Sound Library allows you to select from the built-in collection of sounds, as well as your own recordings and sound effects. Sound categories are listed along the left side of the screen. Individual sounds belonging to the selected category appear along the right side.

If there are more choices than will fit on-screen, you can scroll the list by sliding it up and down with the eye.



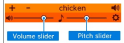
The first two categories are reserved for sound effects that you create. RECORDINGS are sound effects that you record with the microphone, and SFAR are sound effects that you generate with the SFAR Effects Generator. (See the Main Menu Audio Recording and SFAR pages for more information on how to create these sounds.)

The rest of the categories belong to sounds from the built-in library. To use a specific sound, simply tap it. Tap the speaker icon to preview the sound.

When you are satisfied with your choice, tap to return to the Timeline.

### Adjust Volume and Pitch

Before you place a sound keyframe, you might want to adjust the volume or pitch of the sound you've selected. Use the sliders at the bottom of the screen to do this.



Each keyframe you place can have a different volume and pitch.

### Create a Sound Keyframe

You create soundtrack keyframes the same way you create layer keyframes -- by using the Add Menu. Place the stylus on the "A" at the lower left of the Timeline. A pop-up menu appears, from which you can select ADD SOUND KEYFRAME.



(Note: If there is already a keyframe at the current frame when you open the menu, you are given the REPLACE SOUND KEYFRAME option instead.)

### Moving Sound Keyframes

If you need to move a sound keyframe, all you have to do is slide it with the stylus. Place the stylus exactly on the keyframe and then slide it left or right to reposition it. If the keyframes are too small to select easily, you may need to use the Timeline Zoom slider to enlarge them first.

Sometimes you may need to adjust the timing of your soundtracks, and it is helpful to move multiple keyframes at once. If you hold the stylus on a keyframe for one second without moving, a label will appear and the entire soundtrack following the keyframe will appear shaded pink. This means that you can now slide all of the shaded keyframes simultaneously.

### Delete a Sound Keyframe

Delete soundtrack keyframes in the same way that you delete layer keyframes -- by using the Delete Menu. First position the Frame Counter over the keyframe you wish to remove. Then place the stylus on the "D" at the lower left of the Timeline. A pop-up menu appears from which you can select DELETE SOUND KEYFRAME.



### Delete Menu Delete Sound Keyframe

### Reload a Sound Keyframe

If you want to reuse a sound that has already been placed on a soundtrack, or if you want to use a sound from a pre-existing movie, you can load the old sound keyframe information and use it to make new keyframes.

Select the appropriate soundtrack and place the Frame Counter over the keyframe you wish to load. Then choose LOAD KEYFRAME SOUND from the menu. The sound is loaded and you can then use it as you would any other sound.

### Editing Sounds

If a sound is too long for your movie, or if you just want to use a small piece of an existing sound, you can edit it. From the edit menu, choose "Sound" and then "Record and Edit Audio". The selected sound appears as a waveform that you can trim and save for later use, just like recordings from the microphone. See the Main Menu's Audio Recording page for more information.

### Delete or Erase a Soundtrack

If you want to remove all keyframes from a soundtrack, or if you want to delete a soundtrack altogether, use the same Delete Menu that you use to delete sound keyframes.

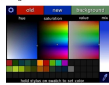
DELETE SOUNDTRACK removes the current soundtrack from the Timeline.

ERASE SOUNDTRACK removes any existing keyframes from the current soundtrack.

## Color Palette

As previously mentioned on the Controls (Shoulder) page, the **L1** or **R1** Button is used to open the Color Palette. Because color selection is something that usually happens quickly, the Color Palette remains onscreen only while you hold the button.

This palette gives you greater control over color selection than the Circle Pad-operated color wheel. You can choose colors based on their Hue, Saturation, and Value components. You can mix two colors together to create a range of colors between them. And you can store up to 40 of your most-used or favorite colors. There is also an Eyedropper tool for picking colors from your artwork. Finally, you can automate color changes for live-painting.



Hold the **L1** Button to open the Color Palette. Note that with an attached Circle Pad Pro or on New Nintendo 3DS systems, the **R1** Button also performs this function.

### Old / New / Background Color

Along the top of the Color Palette are three boxes labeled "old", "new" and "background".

- OLD:** This box displays the current color before you opened the Color Palette. Tap this box if you want to re-select this color. The "new" color will change to match the "old".
- NEW:** This box displays the color you have currently selected. When you release the **L1** or **R1** Button, this will be the current color.
- BACKGROUND:** This box displays the canvas background color. Tap this box to change the background color. It will be set to the same value as the "new" color.

### Hue - Saturation - Value

The heart of the Color Palette is the three-panel Hue / Saturation / Value, or HSV, panel set. These panels offer a dynamic, easy way to choose colors.

When you select a color from any of these three panels, the other two update to display the same color. A tiny circle on each panel indicates that color.

Hue is really just another word for pure color itself. Red, blue, yellow—these are different hues. The Hue panel displays colors of every saturation and value that share the same hue.

If you pick a certain shade of blue, this palette shows every possible saturation and lightness value of that hue.

Saturation describes the purity or intensity of a color. As you lower a color's saturation, it becomes paler and eventually turns completely grey. The Saturation panel therefore displays colors which share the same saturation value.

If you want a new color that is the same intensity as the current color, choose from the center panel.

Value simply means the lightness or darkness of a color. As a color's value becomes lower, it approaches black. The Value panel displays colors that share the same value.

If you want a new color that is the same brightness as the current color, choose from the right panel.

### The Mixer panel

In painting, a palette is used simply to mix colors. In Buttery's Color Palette, the vertical box to the right of the HSV panels is called the Mixer panel. It allows you to mix two colors together and choose from the new colors that result from blending them.

To mix two colors, simply choose a color and tap the top of the mixer panel. The top color changes, blending automatically with the color at the bottom. You can tap the bottom color in the same way to create a blend between any two colors you like. Tap the middle section to choose one of the blended colors.

### Color Swatches

The area at the bottom of the Color Palette stores colors that you use frequently. Simply tap to choose a color from the grid. To store a color in the grid, hold the stylus on a swatch for a second or more. A beep sounds and the swatch updates to the current color. These colors are saved so that you can use them between multiple files and sessions of using Buttery.



### Eyedropper

For some reason the eyedropper has become the universal symbol for a tool that picks up colors from a screen.

To use the Eyedropper Tool, tap the **L1** icon on the Color Palette. The palette will close, and across the top screen you will see a banner asking you to use the eyedropper.

Use the stylus to pick a color from the screen.

As you tap or slide the stylus on the bottom screen, the current color changes to match the one you are touching. Simply release the **L1** or **R1** Button to exit Eyedropper mode and use your shiny new color.

### Automated Color Cycling

Use the **Q** menu at the top left of the Color Palette to automate color changes. You can make the palette cycle through a range of colors as you draw, producing some cool chromatic effects!

Hold the stylus on the **Q** to open the drop-down menu. Then slide downward to enable the various color-cycling options.

The top five options control the color change method.

**CYCLE HUE, CYCLE SATURATION, and CYCLE VALUE** allow you to individually automate the hue, saturation, and value panels. You can enable these individually or together.

**CYCLE MIX** can only operate by itself — it automatically varies the color between the two ends of the Mix color panel.

**CYCLE SWATCHES** can only operate by itself — it automatically steps through colors on the swatch panel. By default, it will step through the first range of colors on the panel. However, if you tap on another range of colors, it will use that range. The dark grey color is used as a delimiter for separate color ranges.

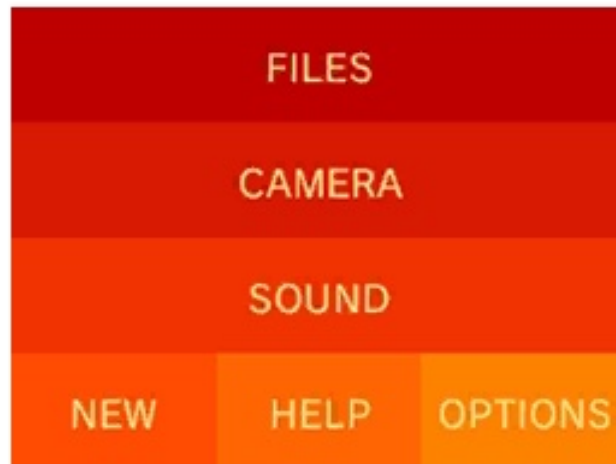
The speed of these color changes is controlled by the **SPEED** slider at the bottom of the menu. Move the slider to the right to change colors faster in the forward direction. Move it to the left to change faster in the reverse direction.

**BACK AND FORTH** causes the color change to reverse direction once it reaches the end of the range. The color smoothly bounces back and forth without a perceptible break. When this option is deselected, the color jumps immediately back to the beginning when it reaches the end of the range.

**TOUCH RESET** causes the color range to begin anew each time you start a brushstroke. Use this if you want all of your brushstrokes to have the same color progression. With this option unchecked, the color change happens independently of your brushstrokes.

## 23 Main Menu Overview


Access the [Main Menu](#) by pressing the  Button. It looks like this:



The Main Menu is the hub for all of Butterfly's non-drawing-related tasks:

- Save and load movies, both locally on the device and wirelessly via the online gallery.
- Shoot video, time-lapse and stop-motion photography with the camera.
- Record audio and create synthesized sound effects.
- Start over with a new movie.
- Access the help and e-manual.
- Change options.

The pages in this section describe each of these features in detail.

Remember, open and close the Main Menu using the  Button.



## 24 Device Files

The first option on the Main Menu is FILES. The FILES section is used to:

- Save and load movies locally on the device.
- Visit the online gallery, where you can upload, browse, and download movies.
- Export to the SD card.
- Export / Import to and from the Nintendo 3DS Camera application.

This page describes how to save and load Butterfly movies to and from your Nintendo 3DS system.

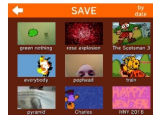
### Browse Device Files

From the Main Menu, tap FILES to access the Files submenu.



Tap "Device Files" -- this means that you want to save or load movies on the SD card (Butterfly's extra data region), rather than wirelessly through the Online Gallery.

The Device File Browser looks like this:



All of your saved movies appear on this screen. If there are more than will fit on one screen, you can scroll the list by sliding up and down with the stylus.

You can also use the +Control Pad to navigate device files. Press  $\Delta$  or  $\nabla$  to browse up and down the list. Press  $\rightarrow$  to jump to the end and  $\leftarrow$  to jump back to the beginning.

You can list movies alphabetically or in order of most recent creation date. Use the menu in the upper right corner of the screen to change the ordering.

### Save a File

If you want to save your current animation, tap SAVE at the top of the screen. You are asked to type a filename. Do this and then tap OK on the keyboard.

If the filename you select already exists, you are given the option to replace the existing movie or pick a new name.

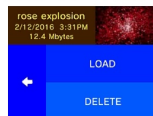
That's all there is to it. Your movie is saved along with a sample screenshot and a thumbnail preview movie. Wait until everything finishes saving and then tap OK when you see the "File saved" dialog.

Note that Butterfly's animation files are saved to the extra data region of the SD card.

See the "Export to SD" page of this manual if you want to retrieve movies for use outside of Butterfly.

### Load a File

After saving a movie, it appears on the browser screen. You can load any movie from this screen simply by tapping its thumbnail image. A movie detail screen is displayed:



On this screen you can see the movie's creation time and also view its animated preview.

Tap LOAD to load the movie and return to animation mode.

### Delete a File

A movie's detail screen also gives you the option to delete the movie.

Tap DELETE to remove the movie from the device. This operation cannot be undone, so you are asked to confirm that you really want to delete the movie.

### Copy to SD

Although normally hidden, the movie detail screen contains a third option, COPY TO SD. You can display it by holding the  $\text{L}$  button.

Use COPY TO SD if you want to move a copy of your movie file to the user-accessible portion of the SD card.

The reason this function is hidden is because it serves no practical purpose for most Butterfly users.

It does NOT create a file you can play in a browser or use in video-editing applications - use the File Menu Import / Export functions for that.

The only time you might need to use this function is if you have problems with a movie and need to contact Butterfly technical support. In that case we may ask you to export the file and send it to us.

## 25 Start a New Movie

One of the most common things you want to do from the Main Menu is start a new animation. Choose this option to erase your current animation and start over.

Tap **NEW** on the Main Menu to start over with a new movie.

When you tap **NEW** you are given the choice to:

- Start from scratch
- Keep current setup
- Choose from options

"**Start from scratch**" creates a new movie with just one layer - with a single cel -- and one soundtrack.

"**Keep current**" creates a new movie with the same layer configuration as your existing one. If you just want to use the same number of layers and cels as your previous movie, choose this option.

"**Choose from options**" lets you select from a list of sample layer configurations. The list looks like this:



Hold the stylus on a selection to display a description of it on the top screen.

Once you make your selection, tap **OK** to create the new movie.

If you need help with Butterfly, check out the Help section. Tap **HELP** on the main menu to choose from these help options:

- Introduction
- Controls Reference
- E-Manual

Also please feel free to email us at this address with any specific questions you may have!

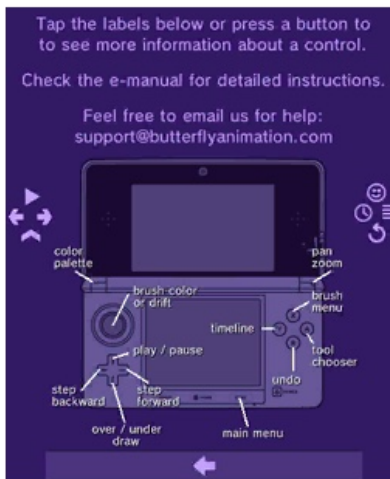
[support@butterflyanimation.com](mailto:support@butterflyanimation.com)

## Introduction

Choose this option from the Help menu to review the set of explanatory illustrations that appear when you tap "Introduction" from Butterfly's title screen. They provide a quick overview of the basic button functions.

## Controls Reference

Choose this option to display a map of the Nintendo 3DS system buttons and their dedicated functions in Butterfly.



Hold the stylus on a label to display more information about the associated control.

## E-Manual

Choose this option to open the very same e-manual that you are reading right now! It provides comprehensive documentation of Butterfly's operation.

## Options

The OPTIONS screen contains a list of preference settings for Butterfly. This page describes each of them.

To reach the Options screen, simply tap OPTIONS from the Main Menu.

### Brush Menu Control

By default, Brush Menu settings are changed with the Circle Pad (or the C-Stick on New Nintendo 3DS systems.) You can change this setting to suit your preference. You can choose to navigate the Brush Menu using the Control Pad or the Circle Pad. On New Nintendo 3DS systems, you can also choose the C-stick. On original Nintendo 3DS systems, you can choose the Right Circle Pad when using a Circle Pad Pro.

### Show top screen icons

The icons on the top screen can be very useful -- they notify you of the current color and the active brush tool, for example. They also indicate whether the animation is playing or paused, and whether you are drawing over or under the current layer.

However, sometimes you may want to view the top screen without any clutter. Uncheck this box if you want to disable the display of icons on the top screen.

### Cel-step

The  $\Delta$  buttons may step more than one frame depending on the Option screen's "Cel-step" setting.

With "Cel-step" enabled, and when the timeline is not visible, these buttons jump to the next layer cel. That may be more than one frame, since layer cels can be shown at different rates.

Show the timeline whenever you want to stop by exactly one frame.

If you don't like this behavior and always want the  $\Delta$  buttons to step exactly one frame, turn off the "Cel-step" feature.

### Scrub Sound

When this setting is checked, any sound effects play as you step frame-by-frame through the movie. With each frame step, just a single frame's worth of sound is played. This is useful for synchronizing sound with graphics -- for example, when trying to lip-synch animation and speech.

Uncheck this option if you do not want to hear sounds played as you step through your animation.

### Auto-adjust end frame

When this setting is checked, the timeline and frame is adjusted automatically as you make changes to layers and keyframes. Butterfly makes its best guess about the ending of your movie.

If you just want to set the end frame manually, uncheck this option.

### Onionskin settings

These settings allow you to change the colors and opacity levels that are used to display onionskin frames. Use the left-hand "Before" controls to change the display settings for preceding frames and the right-hand "After" controls to change the display settings for following frames.

The arrows on either side of these controls determine the order in which the onionskin images are displayed. An "up" arrow means the onionskin frame is drawn behind the current cel. A "down" arrow means that the onionskin frame is drawn in front of the current cel. The default settings will work in most situations.

### Start with saved configuration

This setting allows you to start Butterfly with the same layer configuration as the most recently saved movie. The background color, number of layers, and number of cels per layer are stored. Leave this unchecked if you just want to launch with the default configuration every time.

Use the "Save current configuration" if you want to save the configuration of the current movie manually.

### Circle Pad / C-Stick Function

While you are drawing, the function of the Circle Pad (and C-Stick on New Nintendo 3DS systems) is determined by the Brush Menu settings (see the Brush Tools documentation for more details). However, when you are not actively drawing, the Circle Pad function is controlled by this Options setting.

You can choose between three settings:

- COLOR - shows the color wheel.
- PAN - moves the canvas in the direction indicated by the Circle Pad.
- ZOOM - zoom into and out of the canvas by sliding up and down on the Circle Pad.

Note: If you are using an original Nintendo 3DS, the control for the C-Stick is not visible. Instead, if you are using a Circle Pad Pro attachment then you will see an equivalent control labeled "Right Circle Pad."

### Use Circle Pad Pro

This option appears when you are using an original Nintendo 3DS system. If you have attached a Circle Pad Pro, check this box to use it with Butterfly.

Press the  $\text{L}$  or  $\text{R}$  buttons to establish a connection with the Circle Pad Pro.

### Auto login

Leave this box checked if you want Butterfly to log in for you automatically when you connect to the online gallery. If you uncheck it, then you will be asked to enter your username and password when you first connect to the gallery.

If you want to log out for some reason, tap the "Log out" button.

The name of the current user appears in the box next to "username." You can change this if you want to store a different user's credentials on your device. Entering a different user's credentials will require you to enter the password for the new user.

### Always require PIN entry

Parental controls must be released to access the online gallery. The "Always require PIN entry to release parental controls" checkbox is used to require or disable PIN entry for every visit to the gallery.

If parental controls were previously released and you chose to skip PIN entry thereafter, you can re-enable PIN entry with this checkbox.

### Reset Preferences

Tap this button if you want to reset the Options screen settings to their default values.

This page describes how to connect to Butterfly's [online gallery](#). With the online gallery, you can save and load animations wirelessly. This not only provides you with greater storage capacity for your movies, but you can share them with other artists around the world!

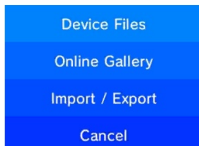
Use the gallery to see what other people are doing with Butterfly. Rate and comment on work that you like. In addition, uploaded animations can be viewed with any web browser! Just go to this address:

[www.butterflyanimation.com](http://www.butterflyanimation.com)

To use the gallery, you must register for an account. A valid email address is required. Before you can log into the gallery, you will be asked to confirm the address by clicking the link in an email that is sent to you when you register.

#### Connect To the Gallery

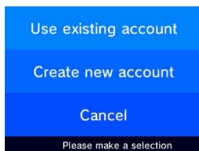
From the Main Menu, tap FILES to access the Files submenu.



Tap "Online Gallery." If you are already logged into the gallery, you are able to browse immediately. If not, you need to login or register for an account.

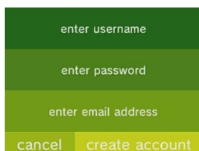
To use the online gallery, you need to have a working internet connection. Please make sure that you are connected to the internet when you try to use the wireless features of Butterfly.

If you are connecting to the gallery for the first time, or if you are not logged in, this screen appears.



#### Creating an Account

Choose "Create new account" if you do not have an account already. You will see the account creation screen.

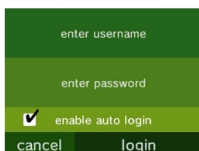


Enter a username, password, and email address on this screen. If the username you want is already taken, you must choose a different one.

When you press "create account," an email is sent to the address you specified. You must respond to this email by clicking the link it contains. This verifies your account, and you can begin using the Butterfly online gallery!

#### Logging In

With a verified account you are ready to log in. The following screen is displayed once you have registered for an account -- or when you choose "Use existing account" from the account choice screen.



Enter your username and password. Leave "enable auto login" checked if you want to log in automatically whenever you access the online gallery. If you uncheck this box, then you must re-enter your name and password each time you restart Butterfly.

You can change the Auto-login preference on the Options screen.

## 29 Gallery Browsing

This page describes how to browse the Butterfly online gallery and download movies. With the online gallery, you can save and load animations wirelessly!

Remember, the online gallery can also be accessed from any web browser at the address:

[www.butterflyanimation.com](http://www.butterflyanimation.com)

### Browsing File Categories

Files in the online gallery can be viewed in several categories. The home screen for the online gallery shows FEATURED movies. This is a curated selection of recent and standout animations.



The other categories are:

- **MINE** - your studio and uploaded movies.
- **RECENT** - recently uploaded movies from all users.
- **POPULAR** - the highest rated movies from all users.
- **STUDIOS** - browse the list of user studios.

Choose a category by tapping its name.

Scroll through the list of movies by sliding up or down with the stylus.

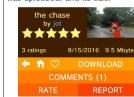
You can also use the +Control Pad to navigate movies. Press  $\odot$  or  $\ominus$  to browse up and down the list. Press  $\odot$  to jump to the end and  $\ominus$  to jump back to the beginning.

If you want to jump directly to a specific location in the list of files, press the V Button. Then enter the row number on the software keyboard.

When you choose the MINE category, you can see your own uploaded movies. You can also make changes to your account. For example, you can choose a poster image or write a greeting for visitors to your online studio. See the "Studios" page for details.

### View or Download a Movie

Select a movie by tapping its thumbnail. The movie's detail screen opens - it displays information about the movie and provides options for you to download, rate, report or comment on it. The animation's screenshot fills the top screen along with any caption its owner supplied. The movie's preview plays on the bottom screen. You can also see the movie's current rating, the number of ratings it has, the date it was uploaded, and its size.

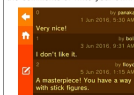


Note that if you are looking at your own movie, the bottom of the screen shows DELETE and  $\odot$  buttons. If it is someone else's movie, there are RATE and REPORT buttons.

Tap **DOWNLOAD** to download and play the movie. (If the movie has been designated **VIEW-ONLY** by its creator, then this button will say **PLAY** instead.) The movie will begin playing once it is downloaded.

### Comments

The online gallery allows users to comment on each other's artwork. On the Selected File screen, the **COMMENTS** button shows the number of comments a movie has received. Tap this button to read the comments or write your own.



This is a comments screen. Scroll up and down the list using the stylus. You can also use the +Control Pad to navigate comments. Press  $\odot$  or  $\ominus$  to browse up and down the list. Press  $\odot$  to jump to the end and  $\ominus$  to jump back to the beginning.

Tap  $\oplus$  to write your own comment. Please be respectful of other users. Report inappropriate use of comments using the **REPORT** button on the Selected File screen, and we will take care of it.

Tap a username to visit that user's studio, where you can view their artwork and see their other comments.

### Ratings

Love it or hate it, you can't deny that criticism is part of the art world. Butterfly's online gallery allows you to rate other users' artworks and in turn have your work rated by them.

To rate an animation, just tap the **RATE** button on the Selected File screen. Then just tap the number of stars you would like to give the work. You can change your rating later if you like.



### Favorite Movies

Use the  $\heartsuit$  button to "favorite" a movie. When you find a movie you like, favoriting it enables you to find it again easily. All of your favorites are listed in a browse tab accessible from your user studio. In addition, favoriting a movie works like a good rating, causing the movie to appear higher in the "Popular" movies listing. Tap the  $\heartsuit$  button and it will change to  $\blackheartsuit$  to indicate that you have favorited it.

You can also favorite users - see the "Studios" manual page for more information.

### Report Artwork Issues

Use the **REPORT** button if you find any offensive or inappropriate artwork or comments in the gallery. Note that users 18 and over can choose to view mature material (see the User Profile screen), but pornographic or offensive material is never allowed. Furthermore, a user may have uploaded mature material and neglected to mark it as mature.

Artwork is approved before it is made available to other users, so problems of this sort should rarely happen. However, if you see something wrong, please use this button to let us know. We'll do our best to take care of the issue as soon as possible.

This page describes how to upload your animations to the Butterfly online gallery.

The first screen you see upon connecting to the gallery is the Featured movies browser. You can also upload your own movies from this screen. Tap **UPLOAD** in the upper right corner.



Enter pertinent details about your animation on the upload screen that appears.

**TAGS** are used to categorize your movie so that other people can find it more easily. You can enter up to 5 keywords. Your movie will show up when people search for movies with any of those keywords.

The **CAPTION** is an optional text blurb that you can use to describe your artwork. It scrolls across the screen when people view the screenshot of your movie.


Check the **MATURE CONTENT** box if your artwork contains age-sensitive material. Note that pornographic or offensive material is not allowed in the gallery. However, if your artwork contains violence or risqué imagery, please check this box. Then only users who are at least 18 years old are able to view it.

The next box allows you to control your movie's accessibility to other users. The default setting is **SHARED** -- other users can save the movie to their devices and even modify their copy. Select **VIEW-ONLY** if you want other users to be able to play your movie but not save or modify copies. Finally, select **PRIVATE** if you do not want other people to be able to see your movie at all. Private movies are visible only to you.

When all of this information is correct, tap **UPLOAD** to initiate the upload process. Depending on the file size and the speed of your connection, this might take a few minutes. Grab a coffee!

Once your movie is uploaded, it appears among your gallery movies. All uploaded movies are reviewed and approved by moderators, so it may take some time before your movie is visible to other Butterfly users.

#### Movie Settings

After uploading a movie, you may want to change its settings. Select the movie by tapping its thumbnail in the gallery browser. Then tap the  button on the selected movie screen to change the settings.

Use the **CAPTION** text field to set or change caption text for the movie.

Enter or change the **TAGS** used to identify your movie in searches.

The next box controls your movie's accessibility. Select **PRIVATE** if you want to prevent others from seeing your movie. Private movies are accessible only to you. Select **VIEW-ONLY** if you only want other users to be able to play your movie. They cannot download, save, or edit copies. Select **SHARED** to allow full access to the movie. Other users are able to save and edit copies.

Be sure to check **MATURE CONTENT** for a movie if it contains material inappropriate for viewers under 18.

Tap **USE AS POSTER** if you want to use the selected movie as your studio poster. See "Your User Profile" on the "Studios" page for more information.

## 31 Studios

This page describes **user studios** in the Butterfly online gallery. Your studio is the place where all of your uploaded artwork resides. You can customize your studio with a greeting and a designated "poster" movie. Users can visit your studio and browse the artwork you've uploaded.

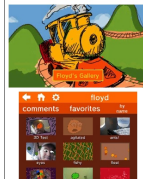
You can visit other users' studios to see all the work they've uploaded. You can view their favorite movies and studios. "Fave" users you like so that you can find them easily later from the favorites tab in your own studio.

Remember, the online gallery is also accessible from any web browser at this address:

[www.butterflyanimation.com](http://www.butterflyanimation.com)

### Your Studio

Visit your studio by selecting **MINE** from the gallery home screen. It looks something like this:



On the top screen is an image you designate to represent your studio -- you can choose any of your uploaded movies for this. Use the **USE AS POSTER** button in the movie's settings, described on "Upload or Modify a Movie" page of this manual.

You can also designate a message to greet visitors to your studio -- it appears in a text box on the top screen. See "Your User Profile" below.

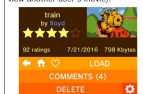
The bottom screen of your studio lists the movies that you have uploaded. You can list your movies alphabetically, by file size, by rating, or by upload date -- just tap the switch in the upper right of the screen to change the ordering.

There are also two tabs, "comments" and "favorites." The comments tab shows all of the comments that you have made on users' movies. The favorites tab lists all of the movies and studios that you have "favorited" with the **♥** button.

When you visit another user's studio, you can see all of their movies, see their poster and greeting, and view their own favorites and comments!

### Delete a File

When you select one of your own movies, the **DELETE** and **♥** buttons appear at the bottom of the lower screen (instead of the **RATE** and **REPORT** buttons you see when you view another user's movie).



Use the **DELETE** button to remove one of your movies from the gallery. This cannot be undone, so you are first asked to confirm the decision before the movie is removed.

### Your User Profile

Tap the **☰** button to open your user profile. On this screen you can change various settings for your online account. Use the stylus to scroll the panel up and down.



Your **Greeting** is displayed in a text box whenever someone visits your studio. You can type any message you want (as long as it is appropriate for all ages). If you don't want a greeting, enter nothing in this box.

Set the colors for your greeting with the **Text**, **Back**, and **Border** color buttons. Use the **Opacity** slider to set the translucency of the greeting box.

If you have a poster movie assigned to your studio, use the **Remove Poster** button to remove it.

Set the poster for your studio from a selected movie's settings screen. When you select one of your own movies, you can choose to use it as your studio poster.

Use the **Change account password** button if you want to change your password. You must verify your existing password before you are allowed to change it.

Near the bottom of the panel are **email notification settings**. Check these boxes if you would like to receive an email whenever someone rates, favorites, or comments on your movies, when they favorite your studio, or when a new movie is uploaded to a studio you have favorited.

At the bottom of the panel is the **Allow mature content box**. Check this if you want to be able to view movies that users have flagged as "mature". You must be eighteen years old or have parental consent to use this feature.

### Your Comments

The **comments** button in the second row allows you to see all of the comments you have left for other users' artwork. Use this list to revisit artworks that you have commented upon.

You can use the same button in other users' studios to view their comments.

### Your Favorites

The **favorites** button in the second row allows you to see all of the movies and studios that you have marked as favorites. Use this page to revisit artworks you like.

You can use the same button in other people's studios to view their favorites.

### Other Users' Studios

From the gallery home screen, you can tap the **STUDIOS** tab to browse the other Butterfly users' studios. Visit their studios to see their artwork, their favorites, and the comments they have left.

You can also "favorite" a user studio -- tap the **♥** button on a user's studio screen to mark it as a favorite. Their studio then appears in the list of favorites on your own studio page. Use this feature to follow the activity of artists you like!



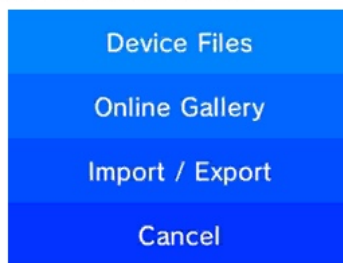
Butterfly allows you to import photos that you have taken with the Nintendo 3DS Camera application. In addition, you can export photos back to that application.

You can also export your animation to the SD card in the form of Flash Player compatible .SWF files or numbered image sequences. The sounds you create and record can be exported as .WAV files.

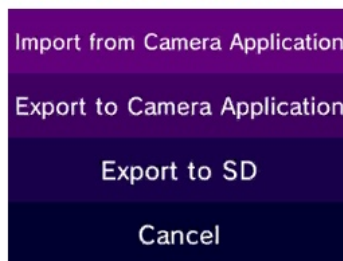
This page describes exchanging photos with the Nintendo 3DS Camera application.

### Import Photos

From the Main Menu, tap FILES to access the Files submenu.



Tap **Import / Export**, then choose **Import from Camera Application**.



A browser appears, allowing you to choose from all the photos you have taken with the Nintendo 3DS Camera application. Choose a photo and tap "Confirm" to bring it into Butterfly.

An imported photo does not appear immediately -- it is placed into the cut buffer, and the SELECT tool is chosen. To use the photo, navigate to the layer and frame where you would like to place the photo, then choose PASTE from the Select Tool ⚙️ menu.

### Export Photos

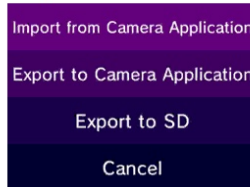
To export an image to the Nintendo 3DS Camera application, tap **Export to Camera Application** from the Import / Export choices screen. Simply confirm that you want to export the current screen frame. The image is saved and you can view it from the Nintendo 3DS Camera application.

Butterfly allows you to export your movies and sounds to the SD card. From there you can copy them to your computer to use for video editing, game development, or anything you like.

From the Main Menu, tap FILES to access the files submenu.



Tap **Export to SD**.



These are the options for exporting:



#### Export Movie as SWF

Choose **Movie as SWF (2D only)** to export your movie in the SWF Flash Player compatible format. This file format is old but playable in most browsers, and it includes any sound effects you have added to your movie.

If you need a different file format, upload your movie to the online gallery. From a web browser, you can then download the movie as a .mp4 file, which is suitable for use in a wide variety of applications.

#### Export Image Sequence

You can also export your movie as a numbered sequence of image frames. This can be useful for importing your work into other graphics effects applications. This option also allows you to export both the left and right views as .mpo files, so that your stereoscopic animation can be reproduced outside of Butterfly.

If you choose to export 2D PNG images, you can select between the left-eye view, the right-eye view, or a centered view.

With 2D PNG images you can also choose a solid or transparent background. The solid background uses your canvas background color and looks like the image you see on screen. With the "transparent" selection, your images have no background at all. This makes them ideal for compositing onto other images.

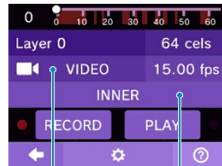
#### Export Single Frame

If you just want to export one image frame from your animation, use the **Export single frame (2D or 3D)** menu option. This option has the same choices regarding 2D/3D images and solid / transparent backgrounds as the image sequence option. See above for details.

Butterfly allows you to use the Nintendo 3DS system's camera to incorporate photos and video into your movies. You can even do time-lapse photography and stop-motion animation!

**CAMERA** is the second option on the Main Menu. This page describes how to use Butterfly's camera controls.

#### Camera Controls



Record Mode

Camera Select

The **Record Mode** box indicates whether you are shooting in VIDEO, STOP-MOTION, or TIME-LAPSE mode. Hold the stylus on this box to choose a record mode from the drop-down menu.



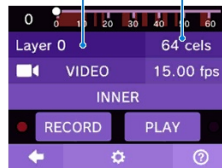
See the VIDEO, STOP-MOTION, and TIME-LAPSE pages for instructions on how to use these modes.

#### Camera Layer / Cel Selection

The camera tools work by recording images onto cels in the currently selected layer.

current layer

# of cels in layer



The **current layer** name is displayed in the purple box near the upper left corner of the screen. Hold the stylus on this box to select another layer.



To the right of the layer names is a checkbox labeled "show all layers." Check this if you want all of your layers displayed on the top screen. With it unchecked, only the current layer is visible.

The **number of layer cels** is displayed in the next box. You can change the number of cels in the layer by holding the stylus on this box and then sliding up or down. Note that if you reduce the number, cels with content on them may be removed.

The **current cel number** is displayed in the upper-left corner. You can tap this number if you want to select a specific cel.

current cel

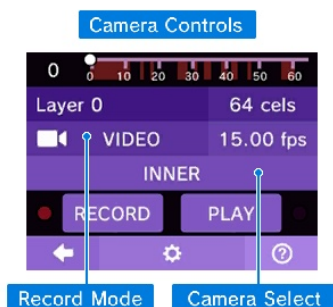


Along the top of the screen is a **ruled slider** marked with the number of cels in the current layer. Any cels with content on them are shaded red.

You can use the slider to scroll through the layer and view all of its cels.

In VIDEO mode the slider always snaps back to cel zero, because video recordings must start on the first cel. In STOP-MOTION or TIME-LAPSE mode, you can use the slider to select the current cel. Subsequent recording will begin on this cel.

This page describes how to record video (with audio) using Butterfly's camera controls.



The **Record Mode** box indicates whether you are shooting in VIDEO, STOP-MOTION, or TIME-LAPSE mode. To record video, hold the stylus on this box to choose VIDEO mode (if it is not already selected.)



### Video Recording

**VIDEO** (🎥) record mode allows you to capture video at the specified framerate. Sound from the microphone is also recorded.

#### Choose a framerate

Set the recording framerate in the box indicated above. You can select a value between 1 and 30. If you want to record at less than 1 frame per second, use TIME-LAPSE mode.

#### Choose a camera

Choose which camera to use for recording. Touch the **Camera Select** button and slide down to choose the OUTER RIGHT, OUTER LEFT, or INNER camera.



#### Record

Finally, tap **RECORD** to begin recording.



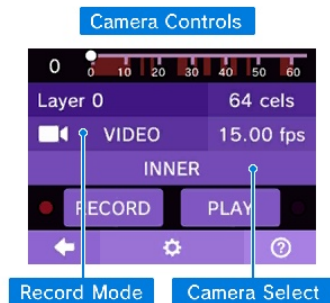
Recording proceeds until the available cels have been filled or you tap **STOP**.

Tap **PLAY** to replay the recording.

If you are happy with the recording, tap the back arrow to return to the Main Menu, or press **START** to go back to your movie.

When leaving Camera mode after making a video recording, you are asked if you want to use the recorded audio. If you answer YES, the audio is placed into a soundtrack on the Timeline.

This page describes how to use Butterfly's camera controls to perform STOP-MOTION animation.



The **Record Mode** box indicates whether you are shooting in VIDEO, STOP-MOTION, or TIME-LAPSE mode. Hold the stylus on this box and choose STOP-MOTION mode.



### Stop-Motion

**STOP-MOTION** ● record mode allows you to record a sequence of images one frame at a time. A special "camera onionskin" feature makes it easy to move objects incrementally across the camera frame, enabling you to create the illusion of fluid motion.

Because stop-motion mode allows you to shoot one cel at a time, use it when you just want to take a single photo.

First select the camera you want to use. Touch the **Camera Select** button and slide down to choose the OUTER RIGHT, OUTER LEFT, or INNER camera.

Next, select the cel on which you want to start recording.

Finally, tap **SHOOT** to take a photo and save it to the current cel of the current layer. The cel advances automatically, ready for the next shot.

### Camera Onionskin

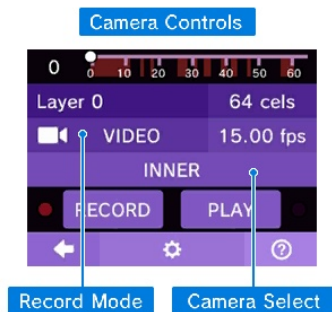
The **Camera Onionskin** feature is used to superimpose the previously recorded camera image over the current one. This allows you to judge how far to move objects when animating them with stop-motion. Check the 'onionskin' box if you want to enable this mode.



This image shows onionskin enabled during stop-motion recording.

When you are finished shooting, tap the back arrow to return to the main menu, or press **START** to go back to your movie.

This page describes how to use Butterfly's camera controls to shoot time-lapse photography.



The **Record Mode** box indicates whether you are shooting in VIDEO, STOP-MOTION, or TIME-LAPSE mode. Hold the stylus on this box and choose TIME-LAPSE.



### Time-Lapse Recording

**TIME-LAPSE** record mode allows you to shoot photos automatically at a specified time interval. The interval can be as short as one second and as long as 999,999 seconds. That's over four days!

#### Choose an interval

Set the '**time-lapse interval**' by tapping the box shown above. The interval is specified in seconds-per-frame. That simply means that the camera waits the specified number of seconds before shooting each frame.

If you are planning on shooting a long time-lapse recording, be sure to leave your Nintendo 3DS system plugged in so that the battery life does not run out!

#### Choose a camera

Choose which camera to use for recording. Touch the **Camera Select** button and slide down to choose the OUTER RIGHT, OUTER LEFT, or INNER camera.




#### Start the recording

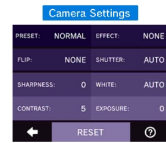
Finally, tap **START** to begin recording. The first photo shoots immediately. After that, Butterfly waits the specified time interval before taking each new shot. The recording ends when all cels have been recorded or you press **STOP**.



After stopping, tap **PLAY** to replay the recording.

If you are happy with the recording, tap the back arrow to return to the main menu, or press **START** to go back to your movie.

The Camera screen has a number of settings that you can adjust to fine-tune the camera's behavior. This page describes these settings.

Tap the  icon at the bottom of the screen to access the Camera Settings.



If you need a quick reminder about the function of these settings, just use the  icon at the bottom right of the Camera Settings screen. Hold the stylus on the  icon and then slide to any setting to display a short description of its function.

### Preset

The **Preset** setting allows you to choose between several common configurations of the other settings:

- **NORMAL**: default settings.
- **PORTRAIT**: settings for portrait photography.
- **LANDSCAPE**: settings for landscape photography.
- **NIGHT**: settings for low-light photography.
- **TEXT**: settings for QR code or written characters.

Use these presets to make basic adjustments to the shooting environment. Use the other settings if you want finer control.

### Effect

The **Effect** setting allows you to apply special effects to the camera image:

- **NORMAL**: no added effect.
- **BLACK AND WHITE**: monochrome.
- **YELLOW TINT**: monochrome with yellow tint.
- **NEGATIVE**: inverted colors.
- **FILM NEGATIVE**: inverted colors with swapped U/V.
- **SEPIA**: monochrome with reddish tint.

### Flip

The **Flip** setting allows you to turn the camera image upside-down, backwards, or both.

- **NORMAL**: no flip.
- **HORIZONTAL**: mirror-flip.
- **VERTICAL**: upside-down.
- **180°**: flip both vertically and horizontally.

### Shutter

The **Shutter** setting changes the framerate at which the camera captures images. (Note that this is different than the framerate setting for VIDEO recording, but it does affect video recording. For example, if you record video at 30 fps, but the shutter speed is only 5 fps, your video appears to play at 5 fps and contains duplicate frames.)

You can choose framerates between 5 and 30 fps. The **AUTO** setting automatically adjusts the framerate depending on available light levels.

### Sharpness

The **Sharpness** setting allows you to adjust the image sharpness by moving a slider between -4 and 5. Sliding to the left reduces sharpness and sliding to the right increases it.

### White

The **White** setting allows you to adjust the white balance of the camera image. Adjust this to match the type of lighting in your scene:

- **AUTOMATIC**: set the white balance automatically.
- **3200K**: incandescent light bulb.
- **4150K**: fluorescent light bulb.
- **5200K**: daylight.
- **6000K**: cloud cover or sunset.
- **7000K**: shade.

### Contrast

The **Contrast** setting allows you to adjust the image contrast by moving a slider between 0 and 10. Sliding to the left reduces contrast and sliding to the right increases it.

### Exposure

The **Exposure** setting allows you to adjust the camera exposure by moving a slider between -5 and 5. Sliding to the left reduces exposure, resulting in a darker picture. Sliding to the right increases exposure, lightening the picture.

### Reset

The **RESET** button simply resets the camera settings to their default values.

Butterfly provides a couple of ways for you to create your own sounds. Using the built-in microphone of your Nintendo 3DS system, you can record dialog, sound effects and music to include in your movies. In addition, the SFXR effects generator allows you to create complex and cool synthesizer sound effects.

SOUND is the third option on Butterfly's Main Menu. Tap it and you can choose to "Record and Edit Audio" or use "DrPetter's SFXR" sound generator.



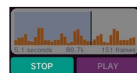
This page describes Butterfly's audio recording tools. Tap "Record and Edit Audio."

**Recording Audio**

These are Butterfly's audio recording tools. They are extremely simple to use.



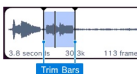
To start recording, just tap RECORD! The audio levels are reflected in the orange bars on screen, and the recording duration is shown in blue.



Tap STOP when you are finished recording, or it will stop automatically at the maximum time.


Tap PLAY to hear your recording.

If you need to trim the beginning or end of your recording, use the TRIM BARS. They are used to isolate a specific section of audio. Just slide the bars so that the blue area encloses the piece of audio you want to use. Use PLAY to check the selection.



Recordings can be used as sound keyframes in your movies. When you exit the audio recording screen and open the Timeline, the most recently recorded audio appears as the current sound. You can also choose any of your saved audio clips from the RECORDINGS category of the Sound Library. See the Timeline Soundtracks documentation for more information.

**Reverse Audio**

Tap the  icon to reverse your recording so that it plays backwards!

**Save or export a recording**

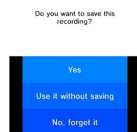
If you are happy with an audio recording, you can save it for use in your movies. Just tap SAVE -- you can save the recording to the Sound Library, or you can export it to the SD card as a WAV file.

Saved recordings appear in the RECORDINGS category of the Sound Library.

**Using unsaved audio**

It's not necessary to save your recordings to use them in your movies. If you are only going to use a piece of audio in one movie, you can exit the audio recording screen without saving. The most-recent audio recording is retained in case you want to use it in a movie.

When you leave the audio recording screen without saving, you'll see this screen:



Tap "Yes" if you do want to save the recording. Tap "No, forget it" if you don't want to use the audio -- it will be discarded.

If you tap "Use it without saving," then the audio still appears in the Timeline sound selector. You see "(unsaved audio)" where it usually displays the sound name. You can use this audio in sound keyframes just as you would a saved sound.

Be careful when using unsaved audio clips -- if you load another sound from the library, the unsaved clip will be discarded and lost! If you are going to use unsaved sound in your soundtracks, do it before loading any other sounds.

**Rate and Bit-depth settings**

The RATE and BIT-DEPTH buttons allow you to change the audio quality of your recordings.

Tap the RATE button to step through three quality levels: 8180, 16360, and 32730. This is the number of sound samples recorded per second.

The higher the rate, the higher the sound quality -- BUT the amount of time you have for recording is reduced proportionally!

BIT-DEPTH refers to the amount of memory used to store each sound sample. You can use 8 bits or 16 bits. The sound quality of 16 bits is twice that of 8, but using it reduces the maximum record time by half.

At the lowest quality of 8180 and 8 bits, you have 16 seconds of recording time. At the highest quality of 32730 and 16 bits, you only have two seconds. Choose your quality settings accordingly.





This software allows you to connect to the Internet to share your work with other artists and participate in the Butterfly online gallery.

For more details, see the online gallery documentation.

- ◆ Refer to your Operations Manual for information about connecting your system to the Internet.

This software supports Nintendo Network.



Nintendo Network is the name of Nintendo's network service that enables users to enjoy games and other content via the Internet.

### Protecting Your Privacy

- To protect your privacy, do not give out personal information, such as last name, phone number, birth date, age, school, e-mail, or home address when communicating with others.
- Friend codes are a part of a system that allows you to play with people you know. If you exchange friend codes with strangers, there is a risk you could share information with people you do not know or exchange messages that contain offensive language. We therefore recommend that you do not give your friend codes to people you don't know.

### Online Communication (Internet)

If your system is connected to the Internet, this game lets you participate in our online community of artists.

#### ● About This Service

This service is an online community where players of this game can share their artwork with the world. You can view, rate, and even comment on artwork in the Online Gallery.

- ◆ For more information about this service, visit the website for this game.

#### Inquiries About This Service

<http://www.butterflyanimation.com/support>

## 42 Save Data Precautions

Data can be lost due to user action, such as repeatedly powering off and on the system or removing a Game Card or SD Card while saving. Data loss may also be caused by poor connectivity due to dirt or dust in the system's ports. Please be aware that in these cases data cannot be restored.

See the Circle Pad Pro Operations Manual for more details about how to use this accessory. This accessory is not necessary if you are using a New Nintendo 3DS or New Nintendo 3DS XL system.

If the Circle Pad Pro accessory is not used for five minutes, it will enter standby mode. To end standby mode, press **ZL/ZR**.

If you are unable to control the Right Circle Pad properly...



Right Circle Pad

If the system behaves as though the Right Circle Pad is being used even when you aren't touching it or if the controls don't seem to operate correctly, you will need to calibrate the Right Circle Pad by following the procedure below.

● Procedure

1. After passing the title screen, press the **START** Button to open the Main Menu. Then select **OPTIONS**.
2. Use the stylus to scroll down the screen. When Circle Pad Pro is active, the "Calibrate Circle Pad Pro" button appears. Select it.
3. Follow the instructions on the screen to calibrate the Right Circle Pad.

◆ To calibrate the Circle Pad on the Nintendo 3DS system, use the calibration procedure in **System Settings** on the **HOME** Menu.

Flat Black Films  
(512) 374-0951  
Phone Support Hours  
10AM - 7PM EST  
support@butterflyanimation.com  
www.butterflyanimation.com/  
support

◆ We happily provide gameplay tips.

Some permissive software licenses request but do not require an acknowledgement of the use of their software. We are very grateful to the following people and projects for their contributions to this product:

■ The libpng graphics library (Glenn Randers-Pehrson and team)

■ SFXR sound effects generator  
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Pettersson