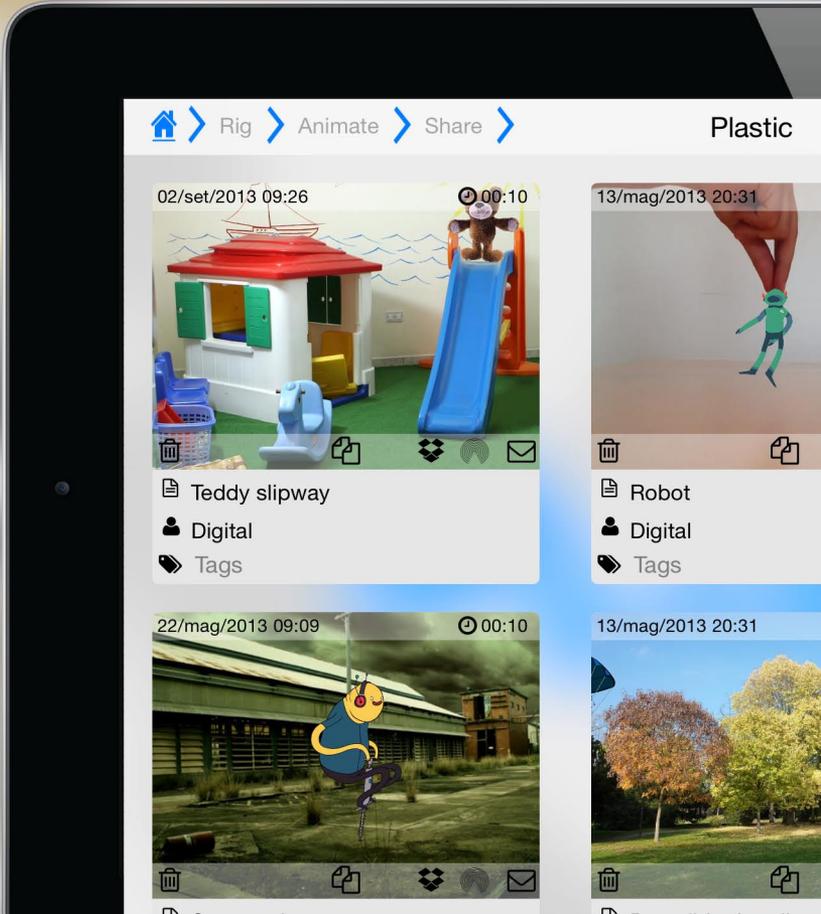


# PLASTIC

## USER GUIDE



Home > Rig > Animate > Share

Plastic

02/set/2013 09:26

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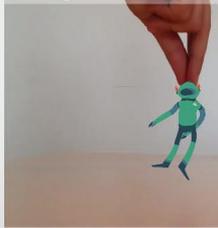


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# Plastic 1.5

**Animation Studio**

**User Guide**

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Rev 1.5

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# Overview

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Plastic Animation Studio lets you easily animate photos or drawings and share your animation with your friends. No drawing experience is necessary: using a reference skeleton, Plastic allows to curving and deforming a drawing or a photo, the deformation is applied along the time, creating smooth animations to share with friends exporting them as videos and publishing them on YouTube or Facebook.



With Plastic you can create an animation easily. To start a new animation load an image, a drawing or a photo from the **Gallery**. This starting

image must have a subject on a transparent background. You can edit the background of the image and adjust it in the **Edit Image** page.

Once the subject is ready, a skeleton has to be created in the **Rig** page, adding the nodes that allow animating it. Each added node represent a joint of the skeleton.

In the **Animation** page, it is possible to set different skeleton positions along the **Timeline**; the positions will be automatically interpolated creating the animation that can be shared creating a video in the **Share** page. You can publish he video in your Facebook profile or on your YouTube channel.

Plastic really brings your images to life!

Unleash the artist inside you and challenge your friends by sharing your animations!

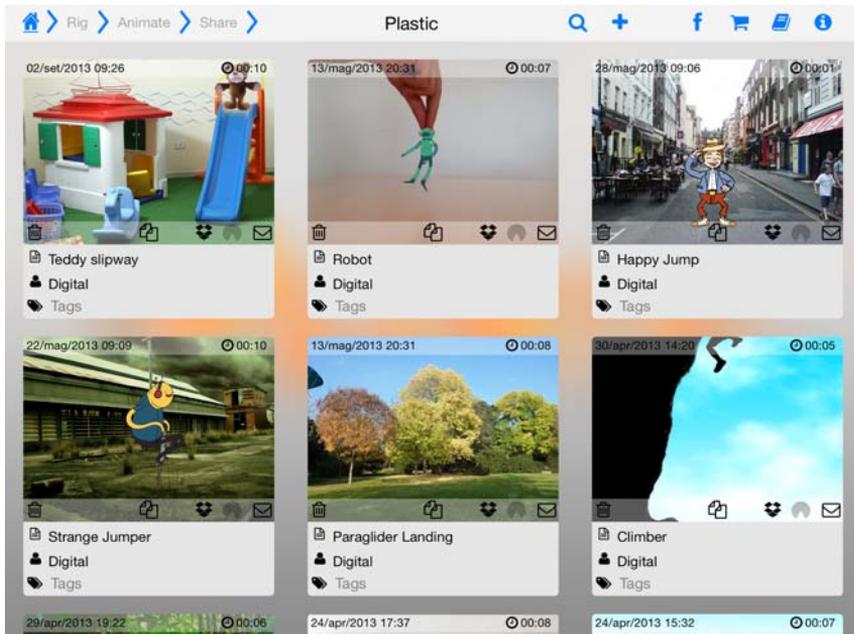
# Graphical Interface

Plastic is composed of four main pages: **Gallery**, **Rig**, **Animate** and **Share**. It is also possible to edit the mask of images in the **Edit Image** page. Each page contains a main Toolbar with a navigation section on the left that shows the workflow phases (the current phase is highlighted) and some buttons on the right; some are specific while others are present in all the pages.

The **Info** button [  ] is always available and opens the **Quick Guide** of the current page. Each page, except for the **Gallery**, contains also a **Tooltip** button [  ] that allows to Show/Hide Tooltips into a floating box.



## Gallery



In the **Gallery** page, you can see in the above image, you can load or edit an animation or create a new one from scratch.

## Gallery Toolbar



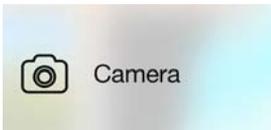
On the right of the **Toolbar** you can find the **Search** and the **Plus** button; the **Search** one allows you to find scenes in the **Library** while the **Plus** one opens the **Import image from** popover to load an image to be used for a new animation. The **shopping cart** button to access the Apple store and buy the in-app purchase packages and the **User Guide** button to Open the User Guide or the Quick Guide. From the **Import image from** popover you can access the **Libraries**.



In the **Plastic library** you can find the images having a transparent background, ready to be animated with Plastic. The images are distributed in sub-folders and some of them can have a built-in skeleton.



In the **Photo Library** you can access all the images stored on your iPad.



Pressing **Camera** you activate the iPad camera to take a photo which will be automatically loaded in Plastic .

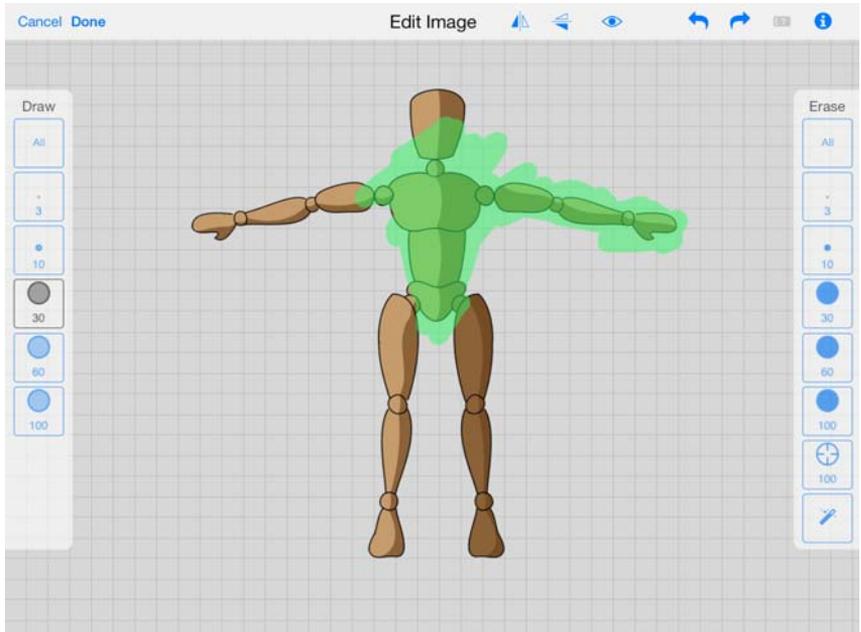


To load an animation simply tap on its thumbnail. Press the **Trash bin** button to delete it, the **Copy** button to duplicate the animation, the **Drop Box** or the **AirDrop** icon to export the animation and the **Envelope** button to send it by Email.

Below the animation icon you can edit the Animation name, Author and add some tags. All these information will be used when you do a

search.

# Edit Image



After you have choose a starting image you can adjust it in the **Edit Image** page. In this page it is possible to edit a loaded image in order to eliminate the background isolating the subject you want to animate. The areas to hold are shown in green while those eliminated are not shown at all.

## Edit Toolbar



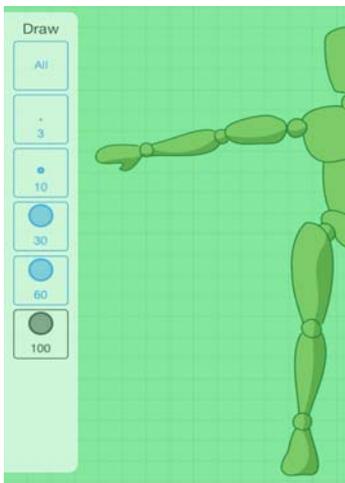
On the left side of the **Toolbar** you can see the **Cancel** and **Done** buttons, using them you can confirm the image editing going to the next step or Cancel it coming back to the **Gallery** leaving the image unchanged.

On the right side, starting from left to right, you can find :

- the **Flip** buttons, to flip horizontally or vertically the current image
- the **Preview** button to preview the editing result before saving

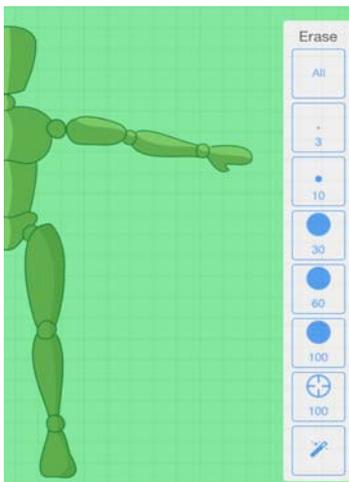
- the **Undo** and **Redo** buttons to allows to Undo o Redo the previous actions.
- the **Show / Hide** tooltip button.
- the **Info** button to open the Quick Guide of the current page.

## Draw Toolbar



Pressing the **All** button the image became completely solid, all the areas that have been erased will be restored. To set the Brush size and start painting press the 3, 10, 30, 60 or 100 button.

## Erase Toolbar



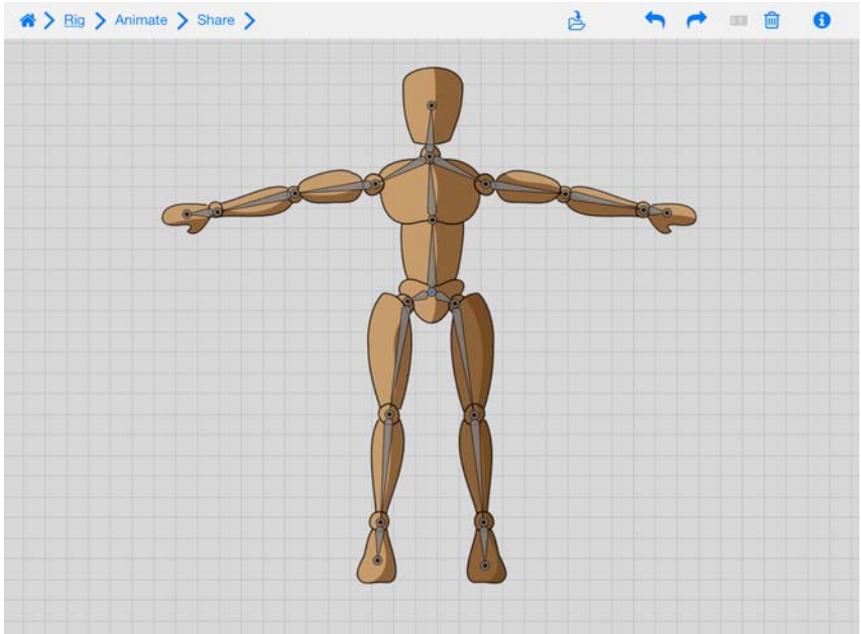
Pressing the **All** button all the solid areas of the image will be deleted.

To set the Eraser size and start erasing press the 3, 10, 30, 60 or 100 button.

Pressing the **Selective Eraser** button you can select a color and remove all the similar color from the image using fingers.

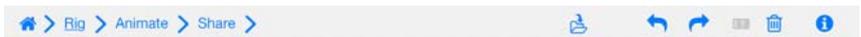
Pressing the **Magic Wand** button all the areas that use the selected color will be automatically removed from the image.

# Rig



In the **Rig** page you can create the skeleton that will be used to animate the subject.

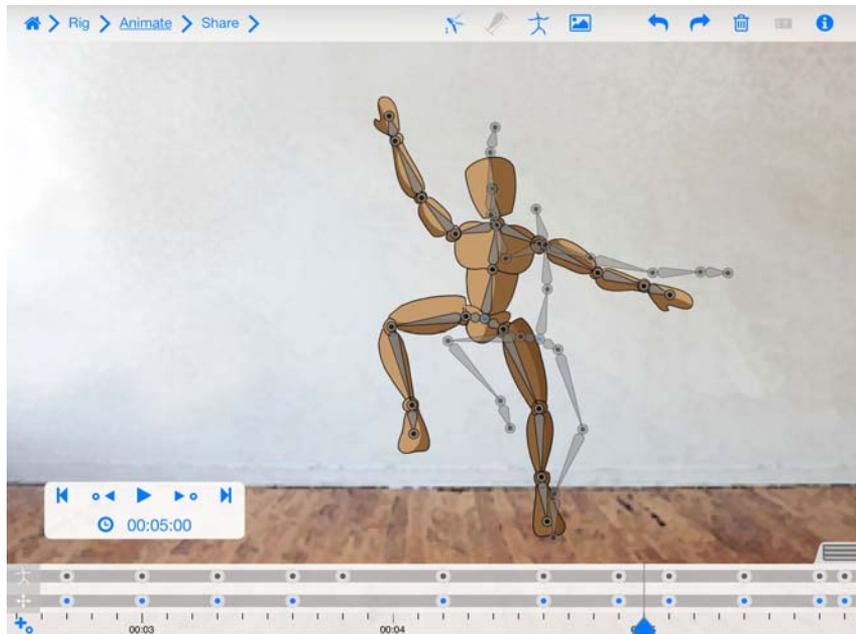
## Rig Toolbar



On the right of the **Toolbar** you can find:

- the **Save Skeleton** button to save the skeleton together with the image in the **Plastic Library**.
- the **Undo** and **Redo** buttons to allows to Undo o Redo the previous actions.
- The **Trash Bin** button allows to delete the skeleton.
- the **Show / Hide** tooltip button.
- the **Info** button to open the **Quick Guide** of the current page.

# Animate



In the **Animate** page you can animate the skeleton deforming, moving and resizing the subject and putting it in different positions, creating key frames for each position.

## Animate Toolbar

On the right of the **Toolbar** you can find:



- the **Onion Skin** button to see previous key frames in **Onion Skin** mode.
- the **Keep Distance** button to maintain the same distance between the points.
- the **Show / Hide Skeleton** button.
- the **Background** button.
- the **Undo** and **Redo** buttons to allows to undo o redo the previous actions.

- The **Trash Bin** button allows to delete the animation.
- the **Show / Hide Tooltips** button.
- the **Info** button to open the **Quick Guide** of the current page.

## Timeline



In the **Timeline** you can see:

- The defined skeleton key frames displayed in black.
- The defined position key frames displayed in black.
- An oblique line between two keys indicates that the trend of the animation is not linear.
- The **Set Rest key** button in the lower left of the Timeline.
- The current frame, evidenced by the cursor at the bottom.
- The **Tab**, on the upper right, to **Show / Hide** the **Timeline**.

## Vcr Bar

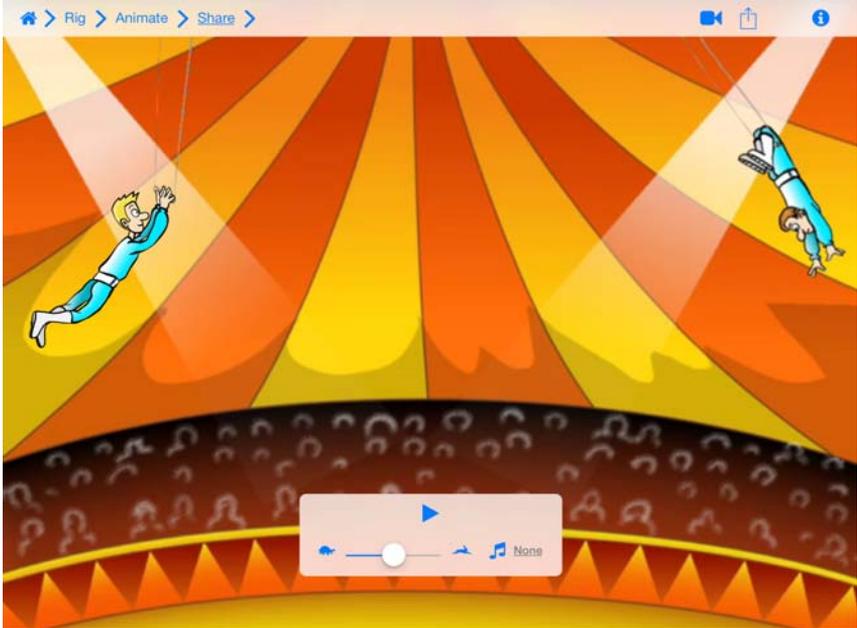


The **VCR Bar** can be floating or docked in the lower part of the **Timeline**.

In the **VCR Bar** you can see:

- The **VCR Bar** to check the animation, key by key or continuously.
- The current time (in the format minute:seconds:hundredths of a second) at the right of the clock icon.
- The timing of the scene, evidenced by white dashes and numerical indication.

# Share



In the Share page you can adjust the animation speed, add a soundtrack and share your animation with friends on Facebook ,YouTube or by Email.

## Share Toolbar



On the right of the Toolbar you can find:

- the **Preview** button create a video to allows you to check your animation.
- the **Share** button allows to share your video in the **Camera Roll**, on Facebook, YouTube or send it by EMail. It is possible to choose the Output resolution.

## Play Toolbar



At the center in the upper part there is the **Play** button, below it you can find the **Animation Speed** slider, while on its right there is the **Music** button to load a soundtrack for your animation.



# Handling Animation

## Exploring the Gallery

The **Gallery** is the first page that opens running Plastic.



The **Gallery** contains both the already saved animations than the access to the **Library**. It is therefore possible to load animations and edit them or load an image and start a new animation. Clicking on the **Plus** button the **Import** popover opens, where you can access the **Plastic Library**, containing images already prepared to be animated, in some cases complete of the skeleton, or the **Photo Library** of the iPad. Choosing **Camera** you can activate the Photo Camera to take a photo and start working on it. In the Plastic Library the images are organized in categories, it is possible to add and remove categories.

## Edit Animation

To load an animation:

1. Tap on the animation frame you want to Load.



To delete an animation:

1. Press the **Trash Bin** button [🗑️] on the lower left

To duplicate an animation:

1. Press the **Copy** button [📄] on the lower middle.

To export the animation to Dropbox:

1. Press the **Dropbox** button [📁] on the lower right

To export the animation to AirDrop:

1. Press the **AirDrop** button [🍏] on the lower right
- 2.

To send the animation by Email:

1. Press the **Envelope** button [✉️] on the lower right.

## Load an Image

To load an image from the Plastic Library:

1. Tap the **Plus** button [➕] in the Toolbar.
2. Tap the **Plastic Library** button [📁] to open it.
3. Tap on the categories you are interested in.
4. Tap the image you want to load.

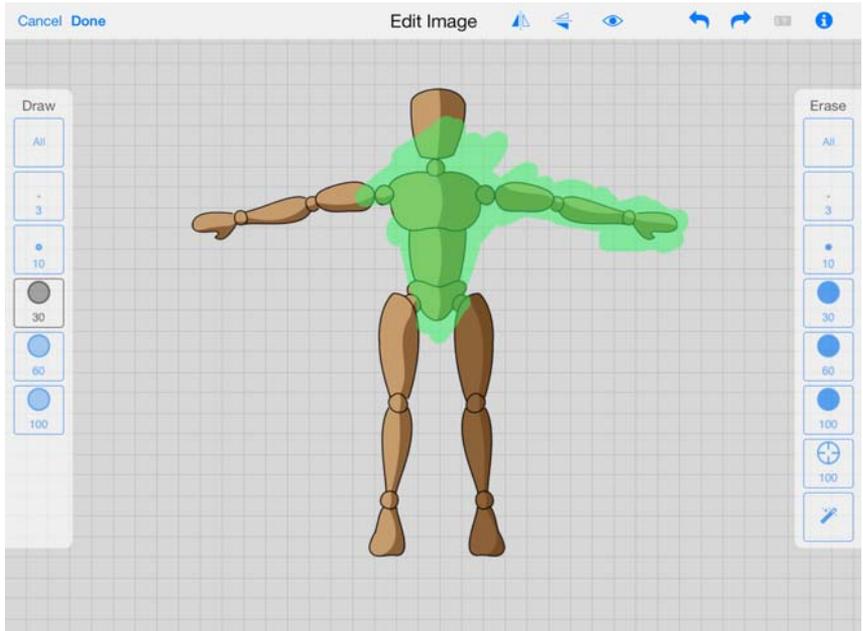
To load an image from the Photo Library:

1. Tap the **Plus** button [➕] in the Toolbar.
2. Tap the **Photo Library** button [📷] to open it.
3. Tap the image you want to load.

## Take a photo

To take a photo to animate:

1. Tap the **Plus** button [ + ] in the Toolbar.
2. Tap the **Camera** button [ 📷 ] to activate the iPad photo camera.
3. Take a picture of a subject, person, object or drawing, to make it immediately available for editing.

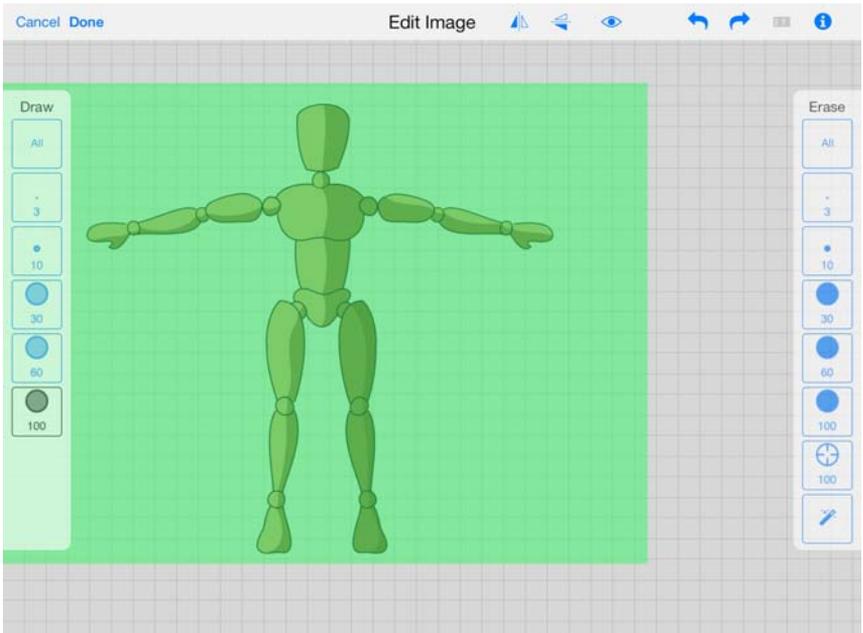




# Edit Image

---

Once you load an image, you can edit it, flipping horizontally or vertically. Using the mask Draw/Erase tools you can remove the unnecessary areas and highlight the subject to animate.



## Masking the Image

Plastic provides several tools to mask the loaded image. With masking you simply choose which area of the image will be preserved (these areas are displayed in green) and which areas will be discarded and filled with a transparent color. On the left side, several drawing tools allow you to paint preserved area while, on the right side, there are the erasing tools to remove areas from the image.

At any time, you can check the result by clicking on the **Preview** button.

If you press and release the **Preview** button, the preview duration will be two second; if you keep the **Preview** button pressed the preview will stop on the release.

On the right side, two automatic masking tools help you during the masking process. These tools are the **Selective Eraser** and the **Magic Wand** .

When the editing is completed, you can click on the done button to go to the following step.

**Note:** If you have edited the image, the result will be automatically saved in your plastic library for further use.

#### To use the Selective Eraser:

The **Selective Eraser** works like an erasing tool, select first a color to be removed and then use it when you paint with your finger.

1. Tap the **Selective Eraser** [].
2. Select the color you want to remove by tapping it.
3. Hold down your finger and drag on the image to erase areas using the previous selected color.

#### To use the Magic wand:

This tool selects the color of the image when you tap it and then use it to remove all the nearest color in the whole image.

1. Tap on the **Magic Wand** [].
2. Choose the color you want to remove by tapping it.
3. Hold down your finger and drag it to modify the tolerance (a circle will show the tolerance value).
4. The removed areas will be displayed in red.

#### To flip image vertically:

1. Tap the **Flip Vertically** button [].

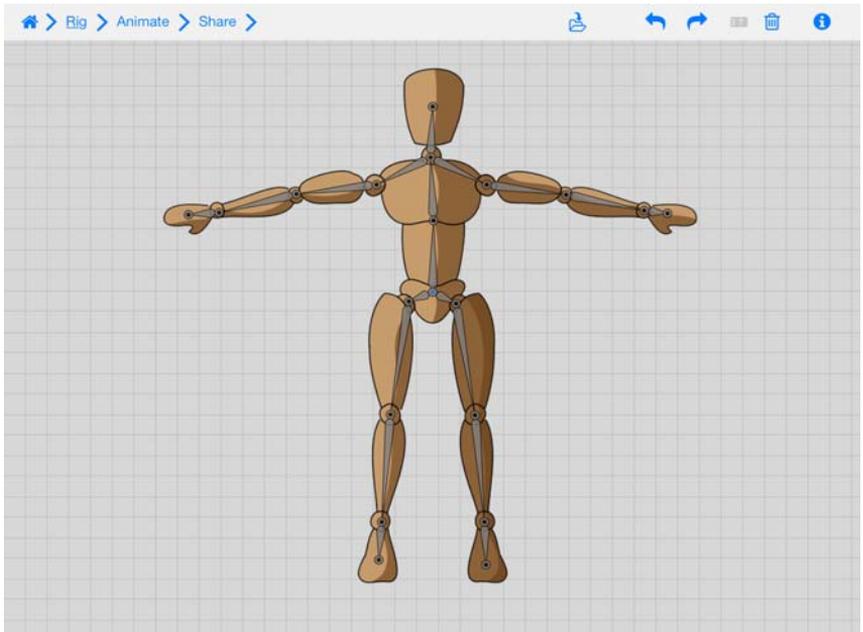
#### To flip image horizontally:

1. Tap the **Flip Horizontally** button [].

# Setting Up Skeleton

---

Once the image is ready, a skeleton have to be created to let you animate the subject.



The skeleton is a set of nodes arranged in a hierarchical manner; each node represents a joint, which can be moved by creating a new position or deforming the subject of the image putting it in a different position.

To start the creation of a skeleton, you must create the parent node that will be the parent of the whole hierarchy: every movement of the parent node involves the movement of the entire skeleton.

The skeleton can be edited at any time changing the nodes position, adding new nodes or deleting some of them.

### To add a parent node:

1. Tap the subject to add the parent node.

**Note:** The parent node has a special meaning.

### To add a node:

1. Drag from an existing node to create a new one.

### To move a node:

1. Hold and drag to move a node.
2. When you keep a node pressed the around area will be shown magnified in a circle, it is useful for the fine positioning.

### To delete a node:

1. Drag the node outside of the drawing to delete it.

### To save the Skeleton:

1. Press the **Save Skeleton** button [] to save the skeleton, together with the image, in the **Plastic Library**.

### To delete the Skeleton:

1. Press the **Trash bin** button [].
2. Press the **Delete Skeleton** label.
3. Confirm to delete the Skeleton.

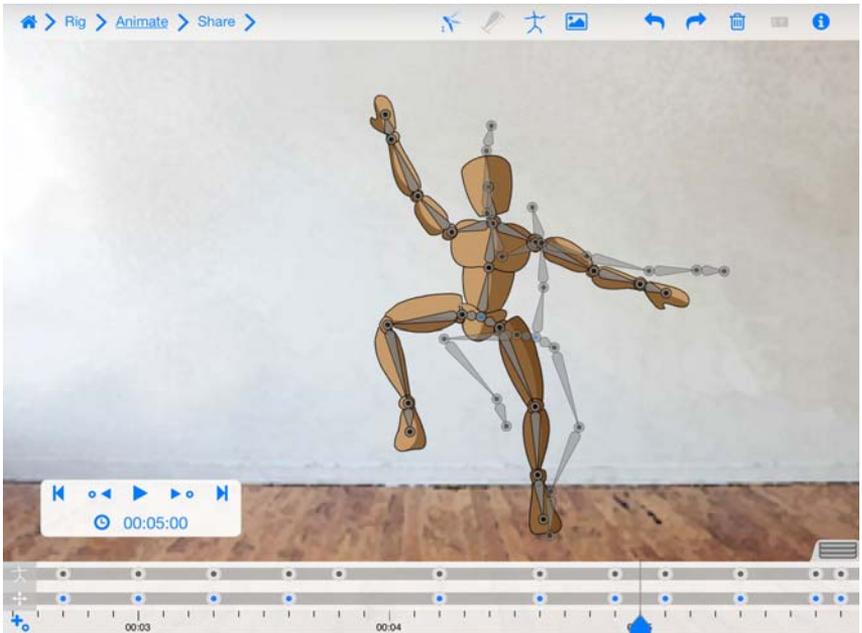
### To Undo/redo the actions:

1. Press the **Undo** [] or **Redo** [] buttons to undo or redo the last operations.

# Animating

---

The animation page is designed to animate the subject after the skeleton creation.



In order to improve the view during the animation process it is possible to pan and zoom in and out clicking and dragging with two fingers. A double click returns the view to its original size.

The character can be moved around clicking and dragging the parent node and deformed by moving the other nodes. Each time the character is moved around a **Position key Frame** is created while moving a skeleton node you create a **Deformation key Frame** on the **Timeline**. The trend of the animation can be modified tapping in the space between

two keyframes, switching between linear, ease in and ease out. It is also possible to define the **Stacking Order** of the nodes.

The **Onion Skin** is available to help in the key frame creation as well as the **Show / Hide** skeleton feature.

The **Timeline**, where you can organize and check the animation creating key frames is positioned in the lower part of the page. The **position Key Frames** and the **deformation key Frames**, that can be moved, copied and deleted, are shown on the upper part of the Timeline the first ones and just below the second ones. The **Cursor** on the bottom indicates the current position.

The **Timeline** range can be resized by pressing with two fingers and slide towards outside or inside to increase or decrease its size.

At this step of the workflow, it is also possible to define the background of the animation; it can be a flat color, an image or a video.

## Animate the subject

### To move the subject

1. Click on the **Parent Node**, a light blue circle will appear.
2. Drag to move the subject around.

### To rotate the subject

1. Click on the **Parent Node**, a light blue circle will appear.
2. Use two fingers (rotation gesture) and rotate them to rotate the subject.

### To resize the subject

1. Click on the **Parent Node**, a light blue circle will appear.
2. Press with two fingers and slide towards outside or inside to increase or decrease the subject size.

### To deform the subject

1. Click a node and move it around.

### To change the Stacking Order of the nodes

1. Press and hold a node to make the **Stacking Order** popover to appear.
2. Press **Lower** to send the joint back or **Raise** to move it forward.

**Note:** The overlapping position is shown in the circle that appears on the joint . The blue circles show the already modified points, the greys circles the ones that keep the original **Stacking Order** position.

## Working with the Timeline

The **Timeline** is displayed in the lower part of the screen, frames are indicated by a white notch, the key frames are indicated by a blue marker [  ] and a red line [  ] shows the current position.

The key frames can be copied, moved or deleted.

The **Timeline** can be scaled up or down and hidden by using the tab on the right.

The **VCR Bar** is on the timeline in the **Animation** page and allows you to **Play** [  ] the animation, to jump to the **Start** [  ] and to the **End** [  ] or to move to **Previous** [  ] or **Next** [  ] key. It is possible to make the **VCR Bar** floating just clicking on it and dragging. Below the controls button there is the **Time** icon [  ] that shows the current time.

On the lower left of the **Timeline** there is the **Set Rest Key** button [  ].

To set a key frame

### To set a Position key frame

1. Move, rotate or resize the skeleton using the parent node and the key frame will be created automatically in the lower part of the timeline.

### To set a Deformation key frame

1. Move a joint of the skeleton and a key frame will be created automatically on the upper part of the timeline.

### To set a Rest key frame

1. Press the **Set Rest Key** button to set a key frame at the character rest position.

### To modify the animation trend

1. Tap in the space between two keyframes, both in the position than in the deformation timeline, at each tap you will cycle through linear, ease in and ease out.

### To Move a key frame

1. Click on the **Keyframe Marker** and move it along the time. To be more precise the nearest area of the **Timeline** is magnified in a circle.

### To Copy a key frame

1. Keep pressed a **Key Frame Marker**.
2. Drag it at the frame where you want to create the copy.

### To Delete a key frame

1. Click on the **Key Frame Marker** and drag it towards the high, outside of the **Timeline**.

### To change the size of the Timeline

1. Press with two fingers.
2. Slide towards outside or inside to zoom in or out the **Timeline**.

### To Show/Hide the Timeline

1. Click on the **Tab** on the right and drag down to hide the **Timeline**.
2. Click on the **Tab** on the lower right and drag up to show the **Timeline**

### To Show/Hide the Skeleton

1. Press the **Show/Hide Skeleton** button  in the Toolbar to show or Hide the Skeleton.

### To reproduce an animation

1. Press the **Play** button to reproduce the animation.
2. Press the **Go to start** button to jump to the start of the animation.
3. Press the **Go to end** button to jump to the end of the animation.
4. Press the **Go to Previous key frame** to go to the previous key frame.
5. Press the **Go to Next Key frame** to go to the next key frame.

## Using Onion Skin

The **Onion Skin** allows seeing the Skeleton Position at previous key frames; this can be helpful to create new position. Three **Onion Skin** levels are supported; the closer will be displayed with a more solid color while those further away are displayed with greater transparency.

### To activate the Onion Skin

1. Press the **Onion Skin** button [] on the ToolBar to activate the **Onion Skin**.
2. Press again to see more frames in **Onion Skin** mode. The Maximum of frames that can be visualized is three.

## Using the Keep Distance Option

The **Keep Distance** Option allows to limit the node movement to the rotation. If it is activated the translation of the node, and the resulting character deformation is not allowed.

### To activate the Keep Distance Option

1. Press the **Keep Distance** button [] on the **ToolBar** to activate/deactivate it.

## Using background

It is possible to add a background to the animation. The background can be a flat color, an image or a video. The video will be played along the animation.

### To set a flat color as Background

1. Press the **Background** button [] on the **ToolBar**.
2. Move the cursor in the color spectrum to select the color.

### To load an image or a video

1. Press the **Background** button [] on the **ToolBar**.
2. Press the **Folder** button to open the **Photos Library**
3. Navigate in the **Library** and tap the image or video to load.
4. Press the **Use** button to load it in the animation.
5. Press **Cancel** to go back to the **Library**.
6. Resize and position the background before loading it.



# Finalizing and Sharing animation

---

Animation created with Plastic can be exported on your camera roll opened with any suitable application or shared via YouTube, DropBox, Facebook, Email.



## Finalize Animation

Before share or export your animation you can adjust the animation speed, choose a suitable soundtrack from your iTunes library and generate a preview.

**To adjust the animation speed:**

1. Move the **Slider** on the bottom left corner to adjust the animation speed: the animation slow down moving towards the tortoise [🐢] and speed up moving towards the hare [🐰].

2. Test the animation speed using the **Play** button.

**To select a Soundtrack:**

1. Click the **Soundtrack** button  on the bottom right corner.
2. Select the soundtrack from your iTunes library.

**Note:** The soundtrack will be played from the start until the end of the video.

**To remove a selected soundtrack:**

1. Click on the **Remove** button .

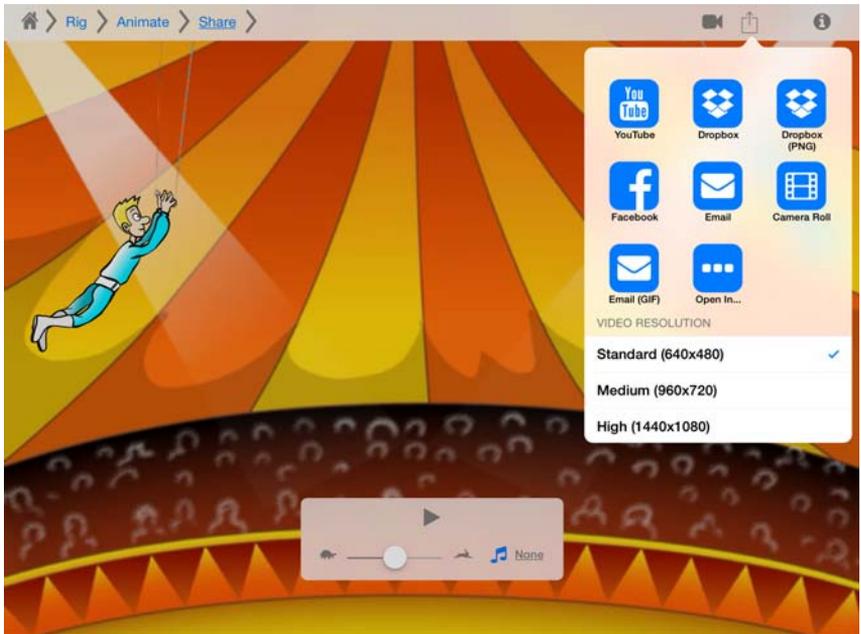
**To generate a preview:**

1. Click on the **Preview** button .

**To publish Export a video:**

1. Click on the **Export** button .

## Share Animation



Share the animation on social network, add to Dropbox, send it by Email or edit it in any suitable App:

1. Click the **Export** button.
2. Set the Video Resolution.

To publish a video on YouTube:

1. Click on the **Export** button .
2. Choose YouTube .

To add a video to DropBox:

1. Click on the **Export** button .
2. Choose DropBox .

To add a PNG sequence to DropBox:

1. Click on the **Export** button .

2. Choose DropBox (PNG) .

**Note:** A sequence of PNG with alpha channel will be automatically added to DropBox. The sequence is compressed into a .zip file.

**To publish a video on Facebook:**

1. Click on the **Export** button .

2. Choose Facebook .

**To send a video via Email:**

1. Click on the **Export** button .

2. Choose Email .

3. Write the subject and the body of the Email and send it.

**To send an animated GIF via Email:**

1. Click on the **Export** button .

2. Click the Email(GIF) icon  to share your video by Email as GIF sequence.

3. Write the subject and the body of the Email and send it.

**Note:** The GIF format does not take into account the resolution set.

**To export the video on camera roll:**

1. Click on the **Export** button .

2. Choose Camera Roll .

**To open a video in any suitable App:**

1. Click on the **Export** button .

2. Choose **Open In....** .

3. Chose an App between the available ones.

**Note:** To share an video to Facebook, YouTube or DropBox you must have a Facebook, YouTube or DropBox account.

# About Us

---

Digital Video S.p.A., parent and R&D Company of Toonz, is based in Rome, Italy.

Digital Video has made the development of the Toonz software package its mission, and Toonz has become a world leader in cartoon animation applications.

Digital Video also develops a product line for web animation and broadcast, the TAB, the line includes a Kids version, the TAB Kids.

Further to Toonz and the TAB, Digital Video has developed other products for the animation industry: LineTest that offers a low cost solution for pencil testing and Story Planner, a powerful yet easy to use solution for sketching storyboards.

The list of professional companies currently using Toonz is enormous, as the installed Toonz base is well over 2,500 seats. The Digital Video products are successfully used to produce hours of animation per day for film, television and multimedia.

## Contact Us



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[www.twitter.com/PlasticApp](http://www.twitter.com/PlasticApp)



[www.facebook.com/PlasticApp](http://www.facebook.com/PlasticApp)



[plastic.toonz.com](http://plastic.toonz.com)