



# Sprite Cutter

r e f e r e n c e

SpriteCutter lets you cut parts of images out from their backgrounds to use in web sites, as online avatars, in games, or in image compositions.

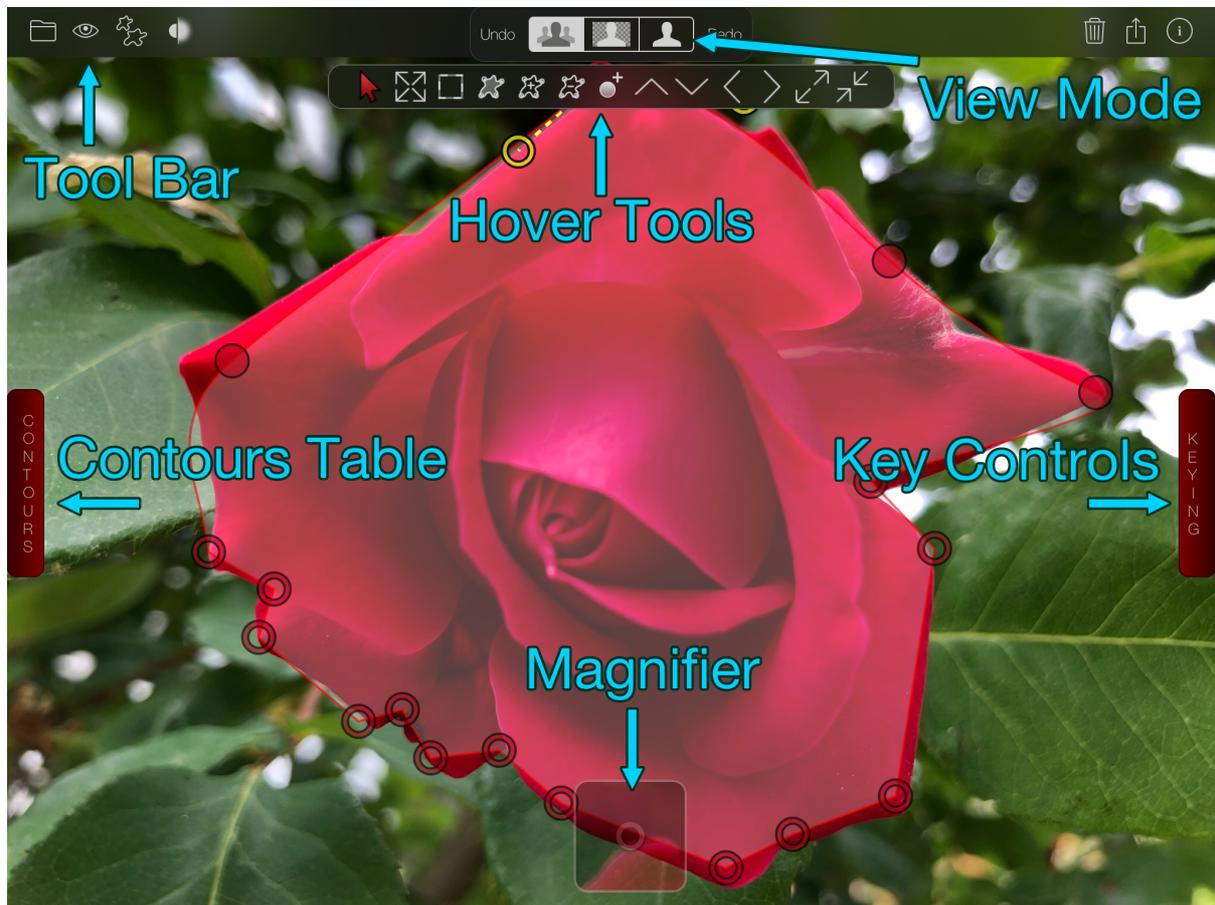
A sprite is a small image, stored with transparency information (called an 'alpha channel') which hides the portions of the image you don't want to see. Sprite Cutter allows you to select the portions of the image you want to keep.

There are three features you can use to make sprites: shapes, color cutting and depth cutting. You can use them separately or in conjunction with one another.

You draw a shape by adding control points. You can edit them afterward to fine tune the contour. You can add multiple shapes if you like. When you are happy with the composition, export your sprite(s) to iTunes, Photo Album or DropBox for use in your favorite image composition apps, like SpriteDance or MotionGraphix



# INTERFACE



## TOOL BAR



**Project Button.** This button opens the project popover which has two items: “Open Project Picker”, to open old projects and delete unwanted projects, and “Make Project” to start a new project.



**Visibility Button.** This button opens the visibility popover for showing/hiding the hover tools, magnifier and contour outlines/handles.



**Contour Type Button.** This button opens the contour popover, which lets you change the style of the contour: Clip, Add, or Subtract.



**Softness button.** This opens the softness popover. Softness affects all contours. Default is 0, no softness. 1 is maximum softness.



**Trash Button.** This button opens the deletion popover. It offers contour or point deletion or reset of cutter parameters.



**Share Button.** You can output png or GIF images, and share them to photos, YouTube or any other sharing methods you have available on your device.



**Help Button.** This button opens the help popover.

## HOVER BUTTONS



**Pick Tool.** This tool is the default tool. Select it to pick or edit a contour, move vertices, or break tangents.



**Transform Tool.** This tool lets you move contours around in the scene.



**Marquee Selection Tool.** This tool allows you to select / deselect multiple or single points at the same time. It is not possible to zoom or pan the workspace when in Marquee tool mode.



**Clip Contour Tool.** The Clip contour defines the outline of the sprite(s). This tool must be selected in order to add a new contour. Once the tool is active any touch in the workspace will add a new point. A simple tap will add a point which has broken tangent handles. A tap and short hold will add a point and let you pull its tangent handles right away. To finish adding a contour either double tap for the last point, or tap on (or very close to) the initial point. Once the contour is finished the tool will automatically switch to the pick tool.



**Add Contour Tool.** Add Contour adds the area under the contour to the end result. It is most commonly used in conjunction with Color or Depth Cutter as a garbage mask. It will keep the semi transparent areas under the contour completely white. The workflow for creating an “Add Contour” is identical to the adding a “Clip Contour”.



**Subtract Contour Tool.** A “Subtract Contour” erases the area under the contour from the end result. It is most commonly used in conjunction with Color or Depth Cutter as a ‘garbage mask’. It will keep the semi

transparent areas under the contour completely black. The workflow for creating a “Subtract Contour” is identical to the adding a “Clip Contour”.



**Add Point Tool.** This tool allows you to add a point to a contour. Tap and hold near the red contour line of a selected contour. A large aqua point will become visible under your finger, which can be pulled along the contour line. Once the point is where you want it, let go and a new point will be added. Once a point has successfully been added, the tool automatically switches to the pick tool.



**Nudge Up Button.** Pressing this button will nudge the selected contour up by one pixel.



**Nudge Down Button.** Pressing this button will nudge the selected contour down by one pixel.



**Nudge Left Button.** Pressing this button will nudge the selected contour left by one pixel.



**Nudge Right Button.** Pressing this button will nudge the selected contour right by one pixel.



**Scale Up Button.** Pressing this button will increase the size of the selected contour by a small increment.

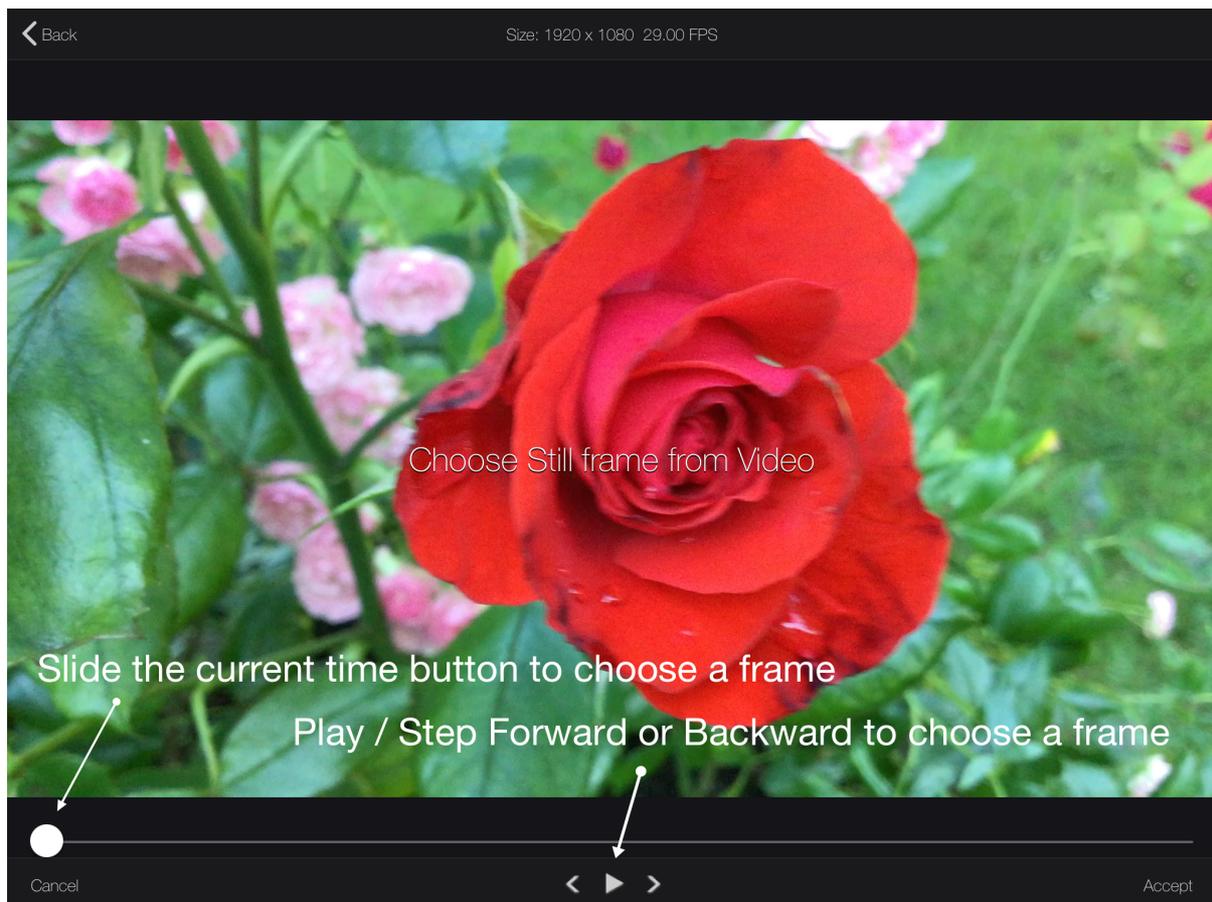


**Scale Down Button.** Pressing this button will decrease the size of the selected contour by a small increment.

# WORKFLOW

The first time you launch Sprite Cutter, the App will prompt you for access to your photos, after which help slides will be presented. Tapping anywhere outside the slides will dismiss them. The slides will automatically play, or you can press the step forward button to advance the slides yourself. Once you dismiss the slides, the photo chooser will be presented. Choosing an image will automatically create the initial project named InitialProject.

At any time you want to start a new project, open the project popover and choose make project. You will be prompted for a name and an optional description. If you don't choose a name, the project will be named "Untitled". Each additional Untitled project you create will get an incremental numeric suffix. When making a new project you can choose a still image or a pick a frame from a movie.



## VIEW MODES

Press one of the View Mode buttons to change the mode: Normal, Transparency, Mask



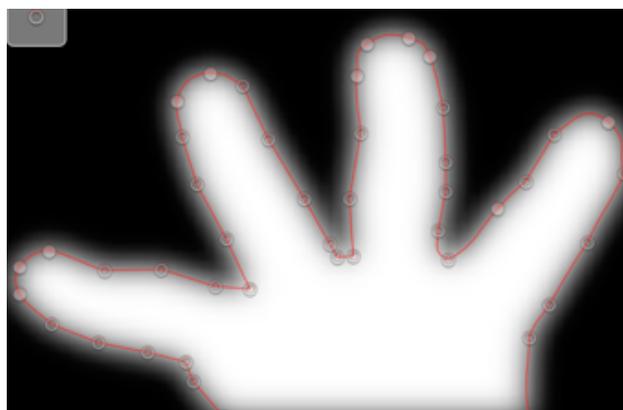
Normal Mode: the entire background is visible and the contour is seen over it.



Transparency Mode: the area around the sprite is transparent, showing no background



Black and White Mode: the sprite is white and the background is black



## CONTOUR ADDING/EDITING

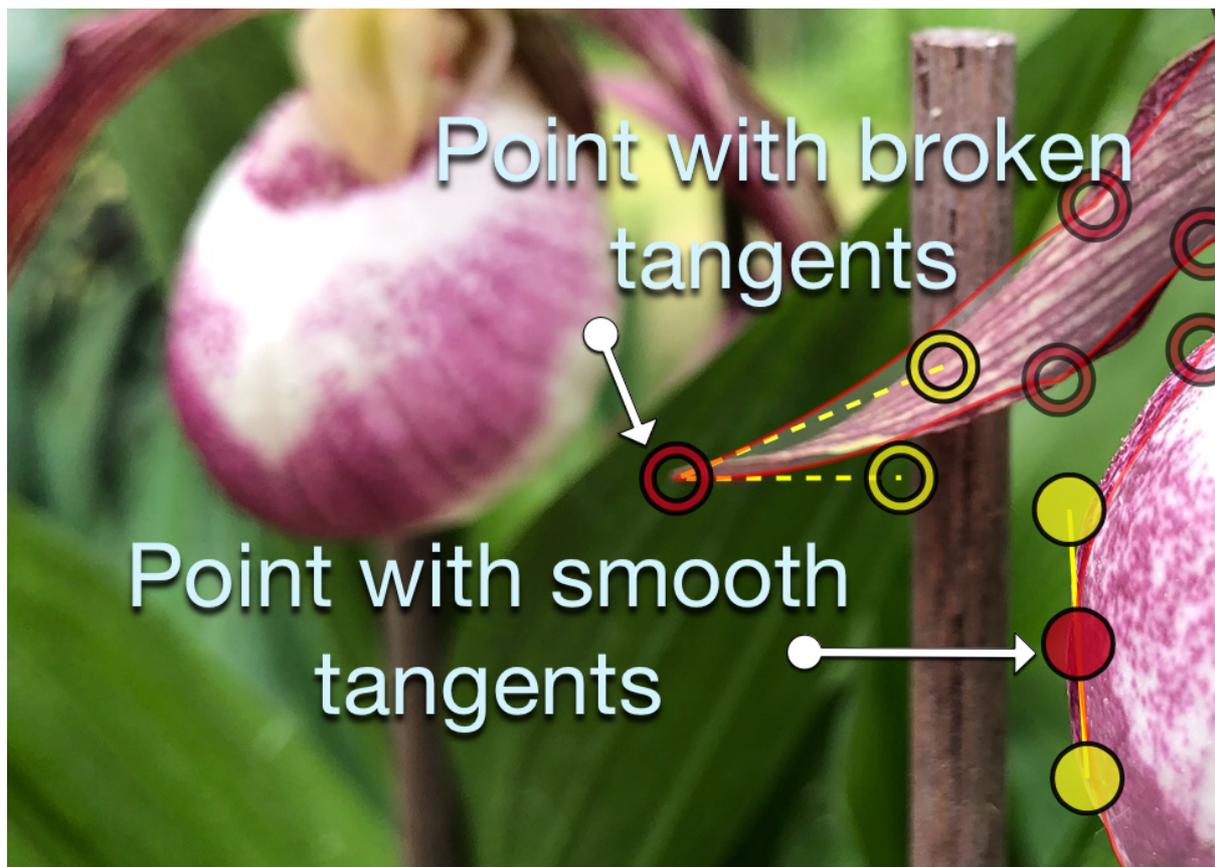
There are two workflows for adding contours. The simplest and easiest is to tap around the edges of the shape you wish to outline and leave the fine tuning till later. The other way is to tap and drag as each vertex is added, in order to fine tune the tangents as you go. We suggest the first workflow.

You can zoom and pan the workspace while adding points to a contour. Once you have added all the points you want, add the last point with a double click. This will close the shape. Alternatively, you can add the last point very near to the first point, and this will also close the shape. When the shape has been closed, the pick tool will automatically be current, so you can begin editing.



The points which are added by simple tapping have 'broken' tangent handles, meaning the curve will be linear. This type of point is useful when a shape has straight edges. Since this is often not the case, it is possible to smooth the point in order to create non-linear curves.

To break and smooth a point, simply double tap on the red point. When a point has broken tangents, the point and yellow handles are hollow. When a point has smooth tangents, the point and yellow handles are solid.



It is also possible to add points with smooth tangents when making a curve. To do this, simply tap and hold when adding a point. Once the point appears, start dragging. This will drag out the smooth tangent handles to make the curve smooth at the point.



To edit a contour, make sure the *Pick Tool* is selected. To select a point, simply tap on it. A selected point displays its handles. A selected point can be moved by dragging on the red portion of the point. Dragging on the yellow portion of the point will edit the curve handles, changing the shape of the curve.



To perform multiple selection on points, use the *Marquee Tool*. Marquee selection will allow you to select / deselect points. You can perform multiple selection with the marquee tool. Once you finish the selection, the tool changes automatically to the *Pick tool*. Touching and moving any of the selected points will move all the points in unison. If you want to delete multiple points, open the trash popover and select the "Delete Selected Points" item.

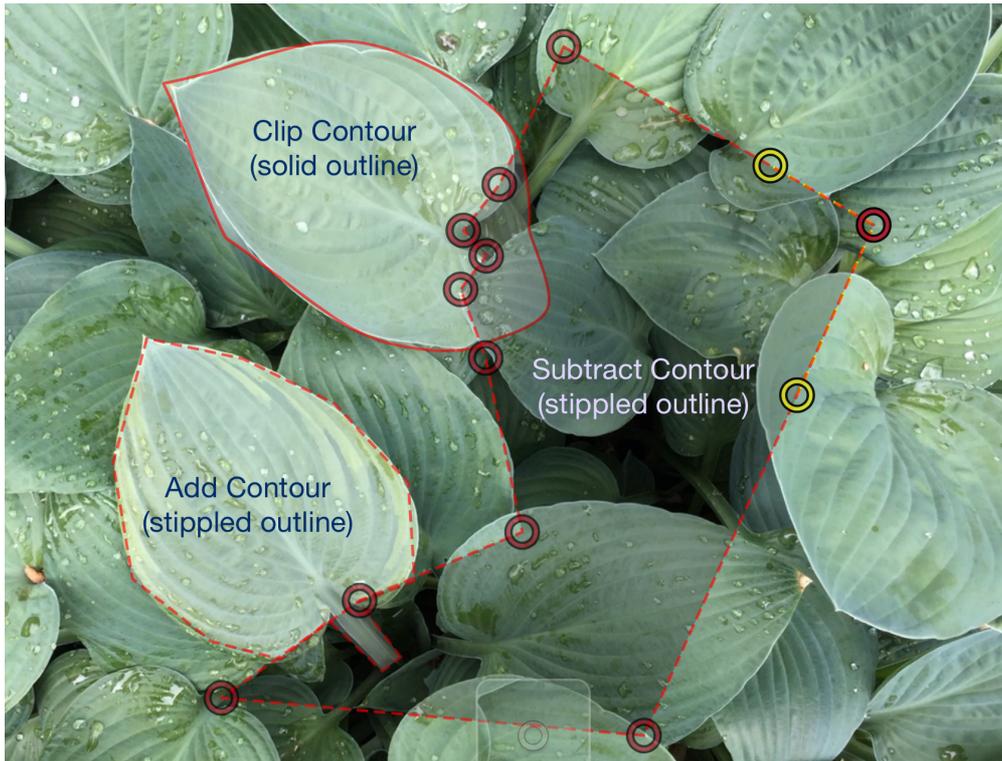


To add a new point to a contour, select the *Add Point Tool*. With the tool selected tap on a contour and hold. An aqua point will be visible under your finger. Move the point until you have it where you want it and let go. This will add a new point. It will often be necessary to adjust the tangent handles to your liking after adding a new point. It is best to zoom into the area you want to add a point before adding.

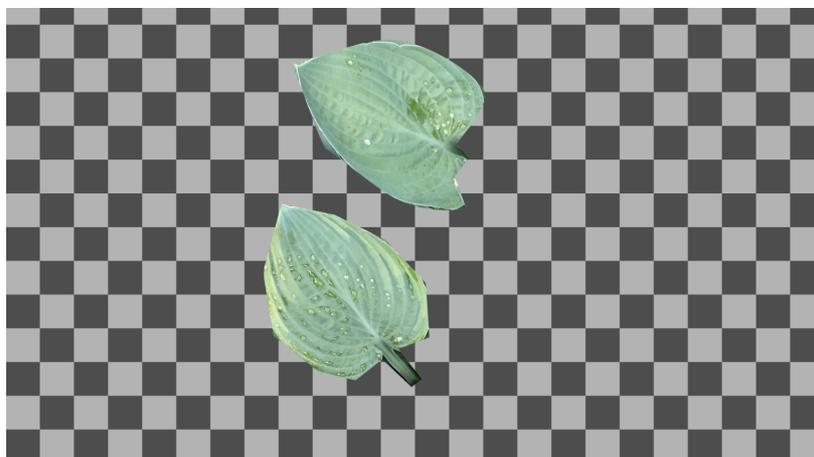
## CONTOUR TYPES

There are 3 types of contours in Sprite Cutter. The main contour type is the Clip Contour. This is the only type of contour that was available in version 2.0.

If all you are working with is contours, the Add and Clip have pretty much the same effect. However, subtract will subtract from the clip contour, but not from the add contour. This would allow you to make a hole in a hole.



The preview below shows that the subtract contour took part of the clip contour away, but not the add contour:

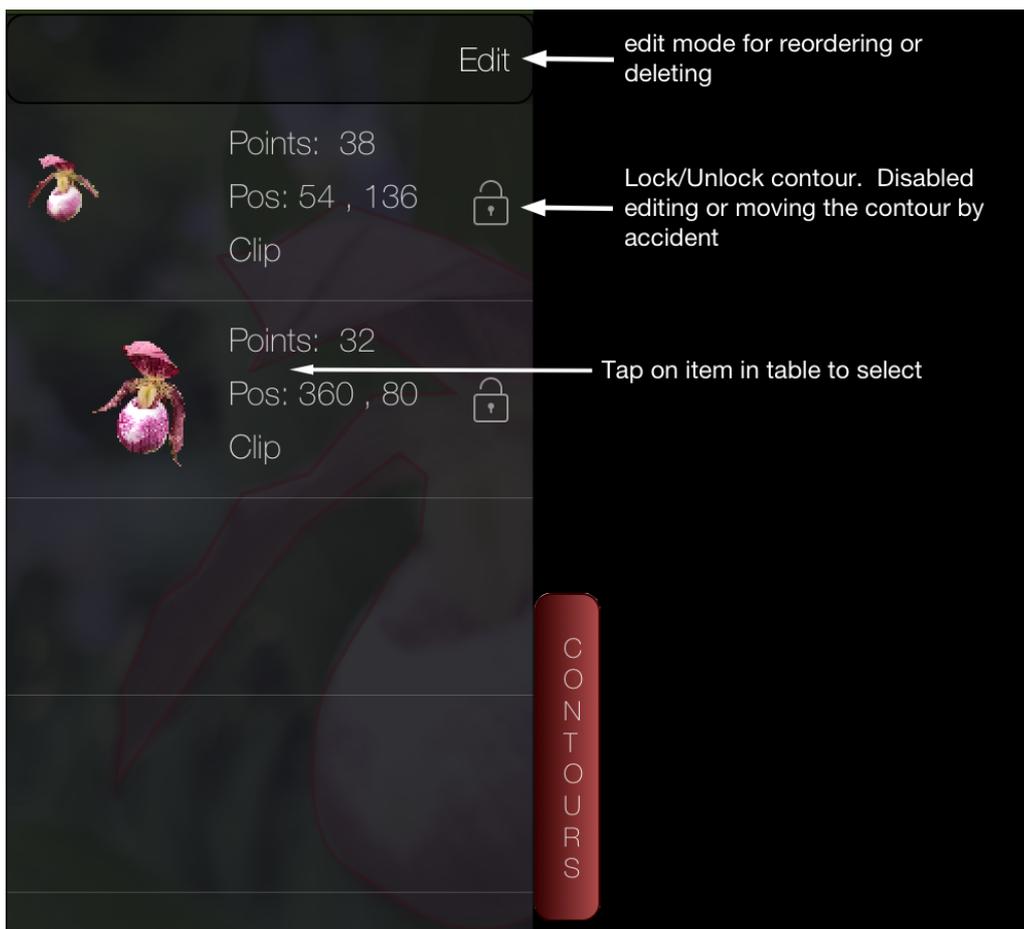


## CONTOURS TABLE

The drawer on the left with the label Contours has the list of all contours in the project. You can select the contours in your project by tapping on an item in the list.

Contours can be locked and unlocked in order to help keep you from moving or editing them by mistake.

To reorder or delete contours press the edit button. Tap and hold an item on the right and drag it to reorder. Press the minus button to delete. You can also delete by swiping an item to the left even when edit mode is off.

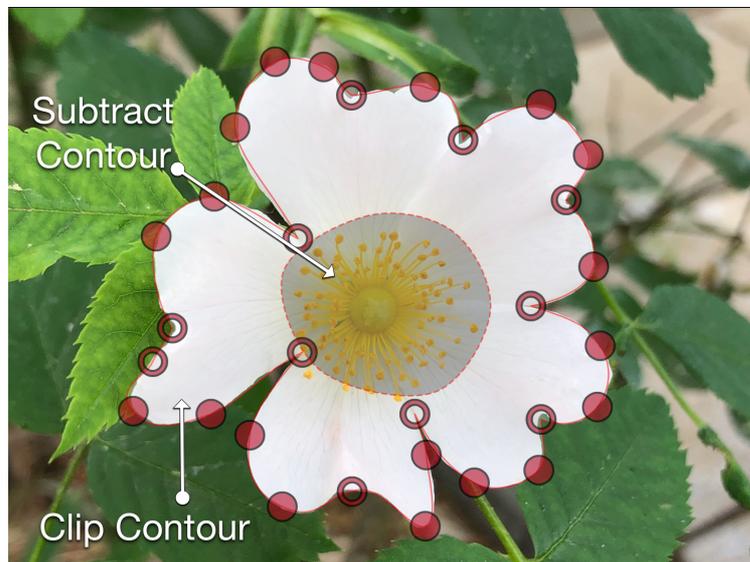


## WORK MODES

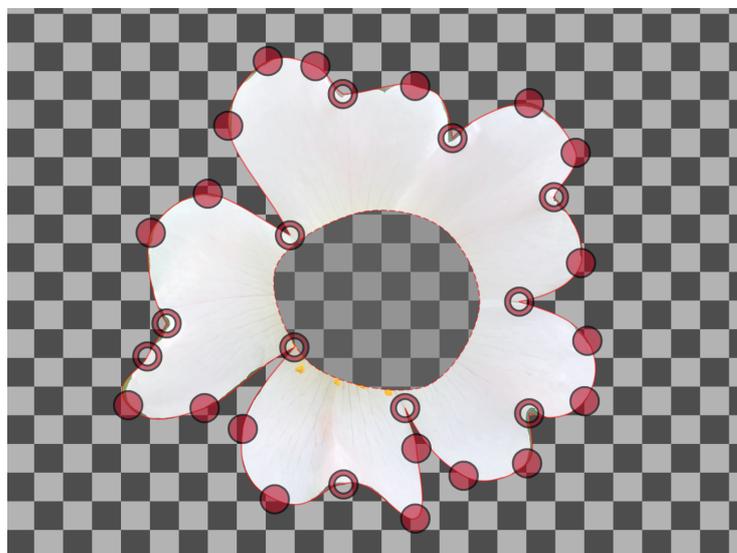
There are two basic modes of work in Sprite Cutter. One is to work with shapes alone, to define areas you want to keep in the image, and the other is to perform keying and use shapes to perfect the mattes. These two modes are certainly not mutually exclusive, but provide a starting point.

### CREATE SPRITES WITH SHAPES ONLY

Begin by adding Clip Contours to define the outline of your sprite. You can add more than one contour. Rendering will either combine the contours into one sprite or render one sprite per contour. If you want to cut anything out of your contour you can use a Subtract contour.



Transparency view of Clip Contour with a Subtract Contour.



## CREATE SPRITES BY COMBINING SHAPES WITH COLOR OR DEPTH CUTTERS

This mode of working allows you to create sprites by removing parts of an image that are close to a certain or are too near or far from the camera. After setting cutter parameters you can use shapes as garbage masks to subtract or add areas that didn't work perfectly.

### COLOR CUTTER

Color cutting, or 'keying' is commonly performed on an image that has a solid color background, generally green, and a distinct foreground you would like to separate out. The parts of the image described by the selected key color are removed and result in transparent alpha. Since photos taken with your device are rarely over a perfectly flat solid color, Sprite Cutter's shapes can be used as 'garbage masks', to clean up areas that don't key perfectly.

To begin keying tap on the Keying drawer to open it. This will make the parameters visible. Per default, keying is disabled. Tap the Off button to turn it On. You can turn on and off keying at any time during your work session.

#### PARAMETERS FOR COLOR CUTTER

**Color** - The color to remove from the image. You can select the color by tapping on the color swatch and opening the color sliders, or by tapping on the eye dropper to pick a color from the image.

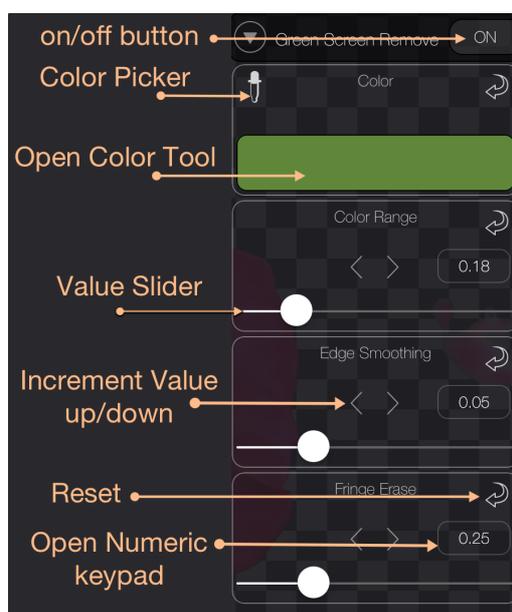
**Color Range** - the range around that color to remove. The higher the range, the more will be removed from the image.

**Edge Smoothing** - softens the transition at the edges.

**Fringe Erase** - removes some of the edge spill that can come from the surrounding background color reflecting on the foreground object.

**Mask Threshold** - cuts out the almost transparent parts of the key (removes grey and turns it black).

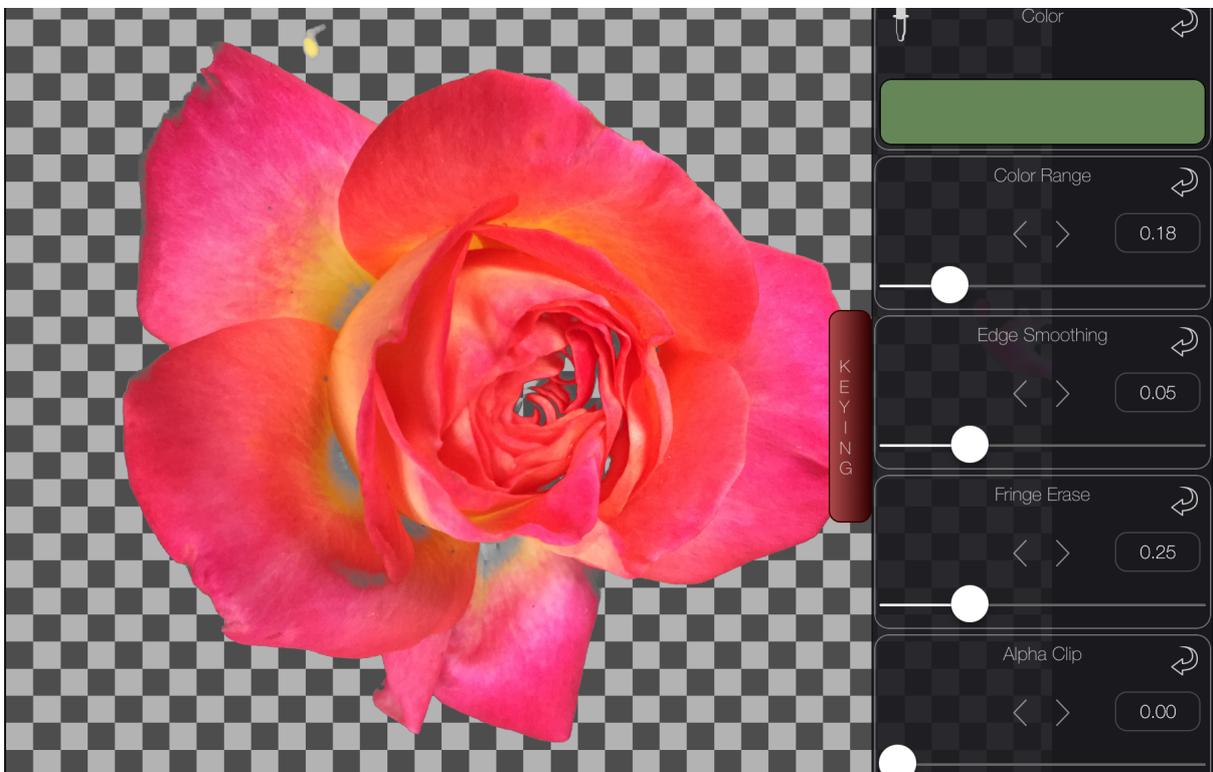
**Brightness Match** - cuts out the almost transparent parts of the key (removes grey and turns it black).



Open the Keying drawer and enable the Color Cutter filter.

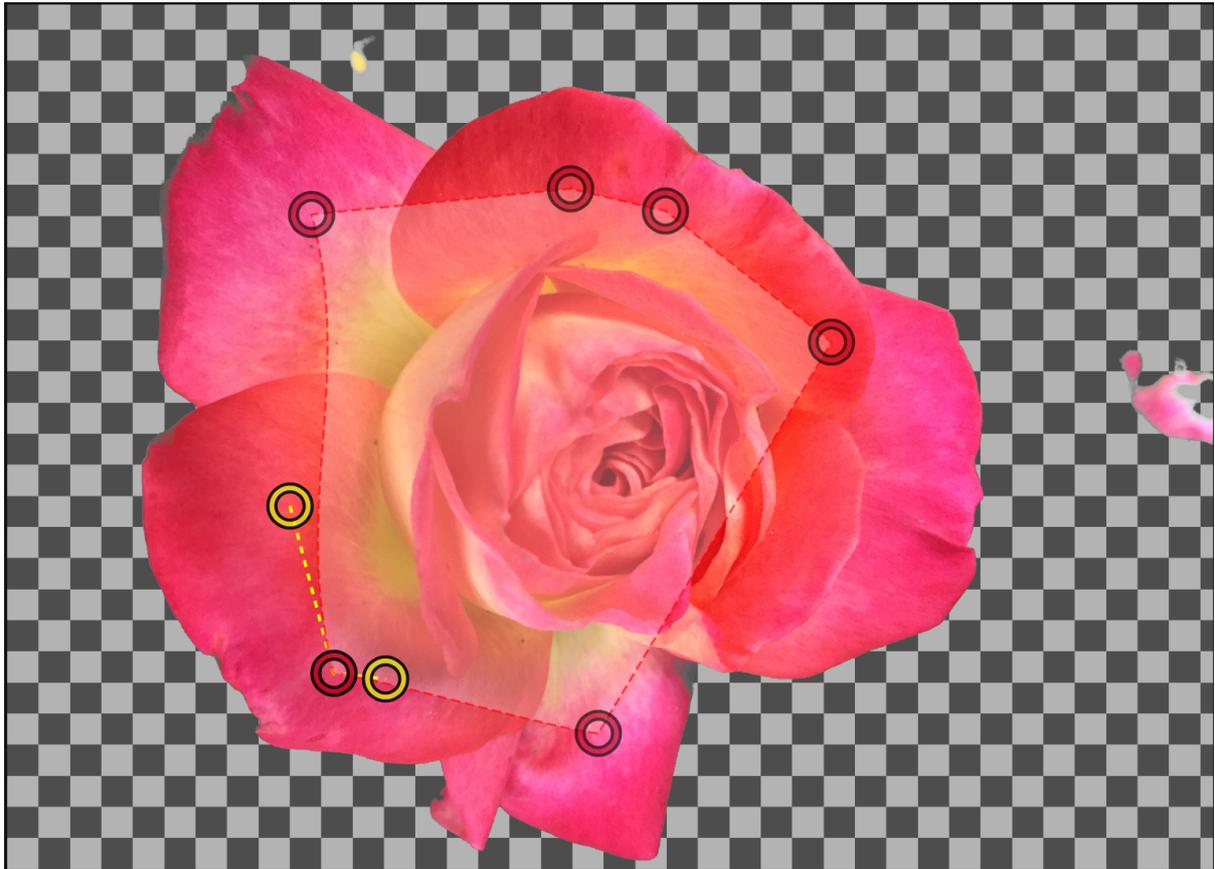


Select the eye-dropper and key on the green leaves.

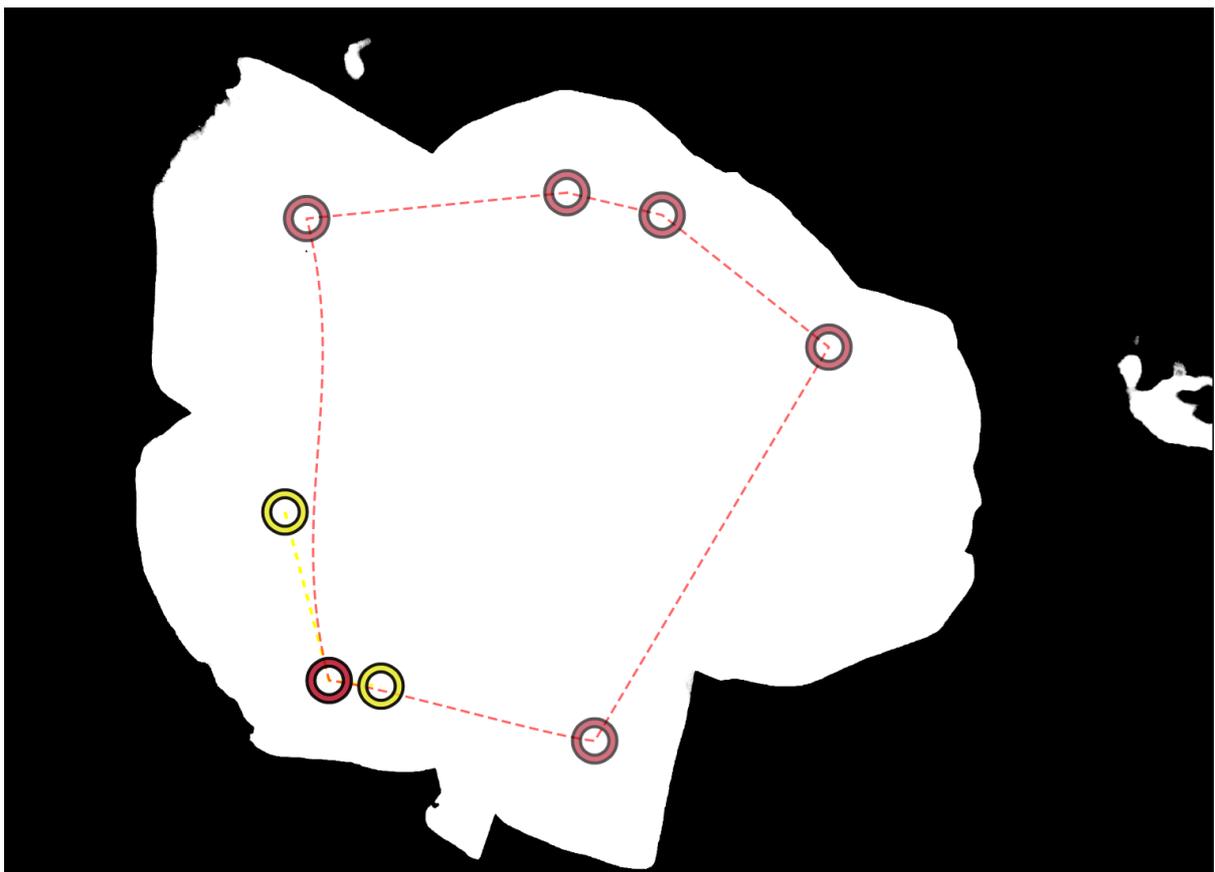


Notice the areas in the center of the rose which got keyed out with the green. You can try to reduce the color range or add an "Add Contour" garbage mask.

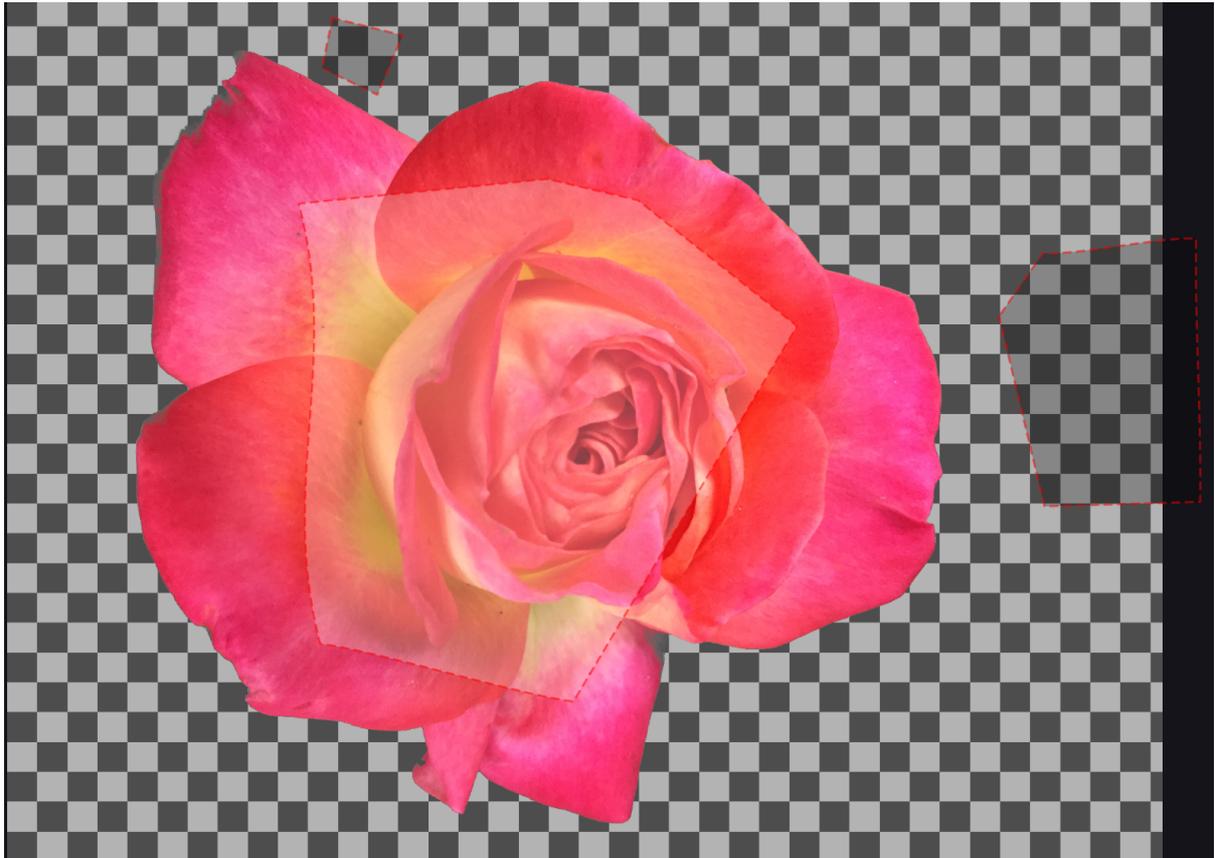
After adding an “Add Contour” mask, the issues in the interior of the rose are fixed.



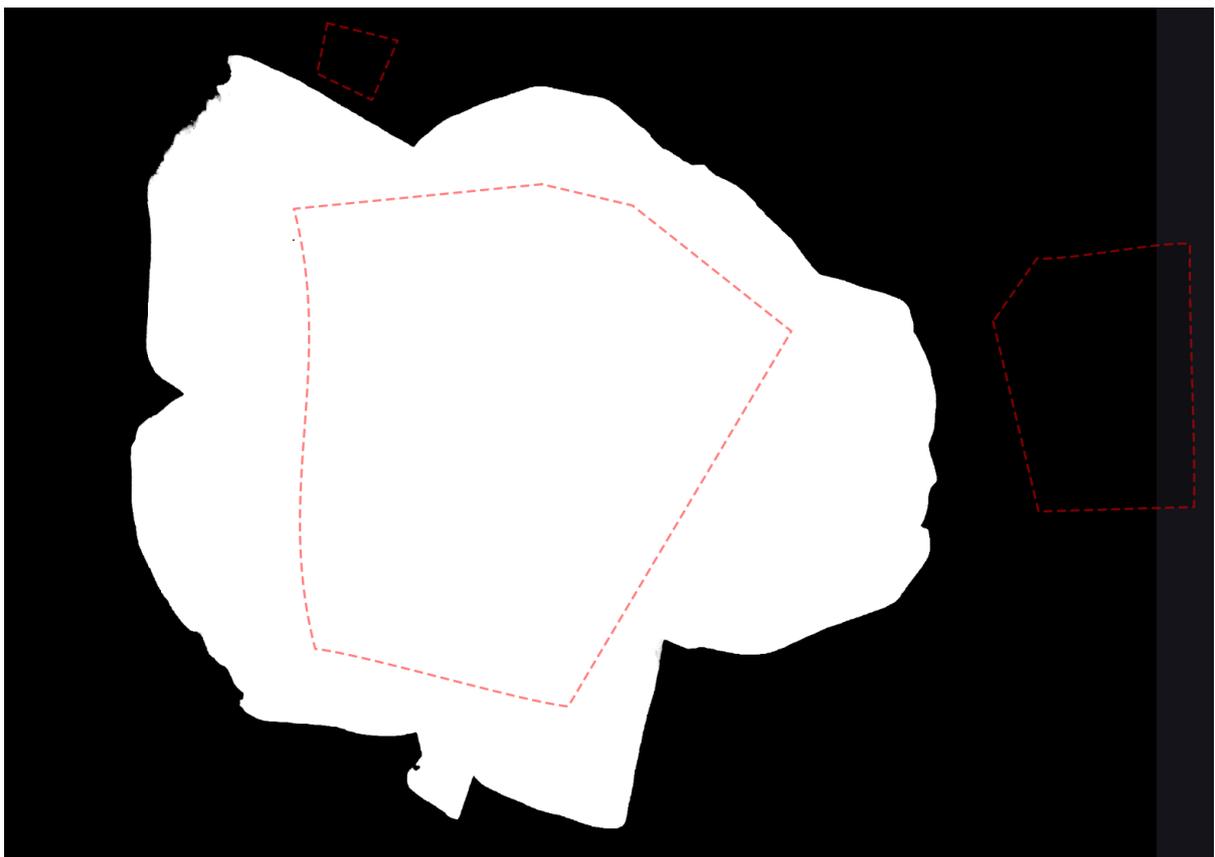
In alpha view, you notice that there are two areas where unwanted garbage is visible at the edges of the image.



To fix that you can add a “Subtract Contour”.



In alpha view, you notice that the two areas where unwanted white was visible in the mask, are now black.



## DEPTH CUTTER

If you make a project from a portrait photo taken with your iPhone 8 or 10, you will have the option of doing a depth key. This filter takes advantage of depth data which has been embedded in the photo. Manipulating the min and max parameters you select the visible region in the image.

### PARAMETERS FOR DEPTH CUTTER

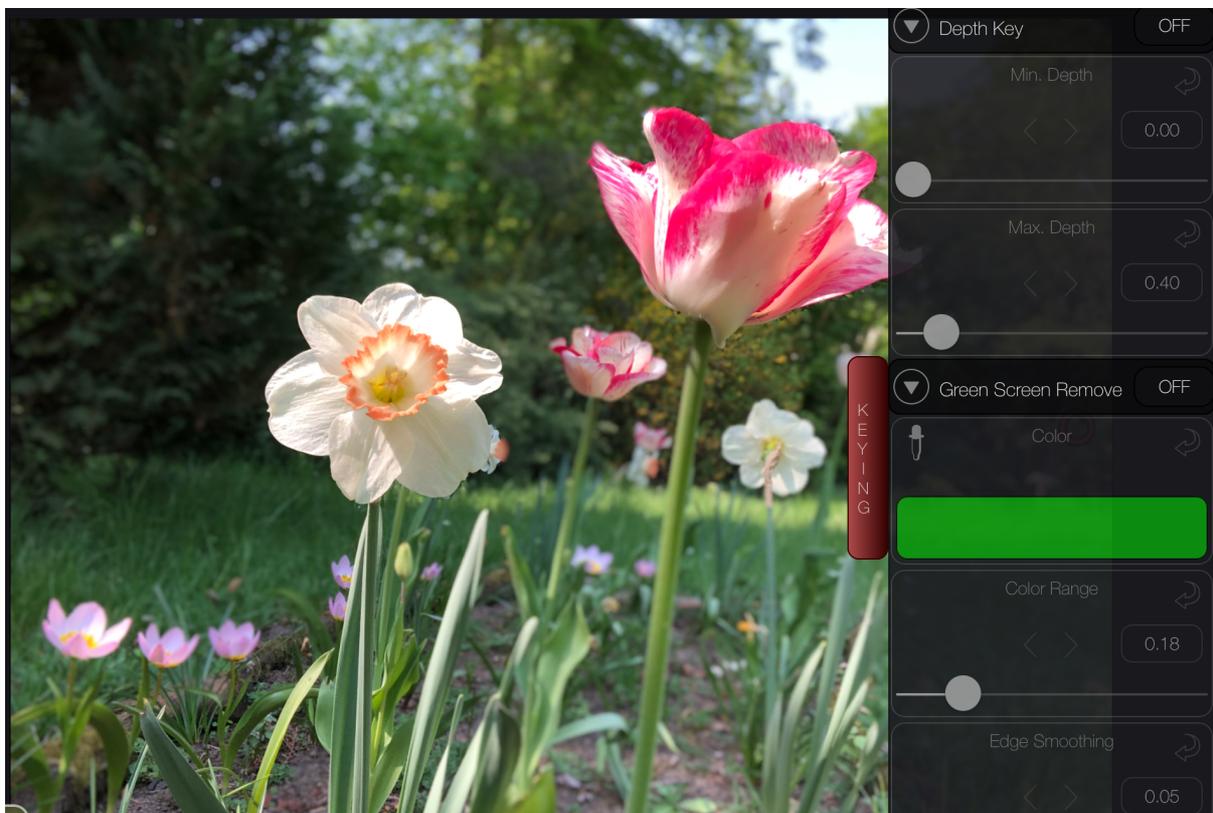
**Front Depth** - changes the minimum visible depth, anything closer than minimum gets clipped.

**Back Depth** - changes the maximum visible depth, anything farther than maximum gets clipped.

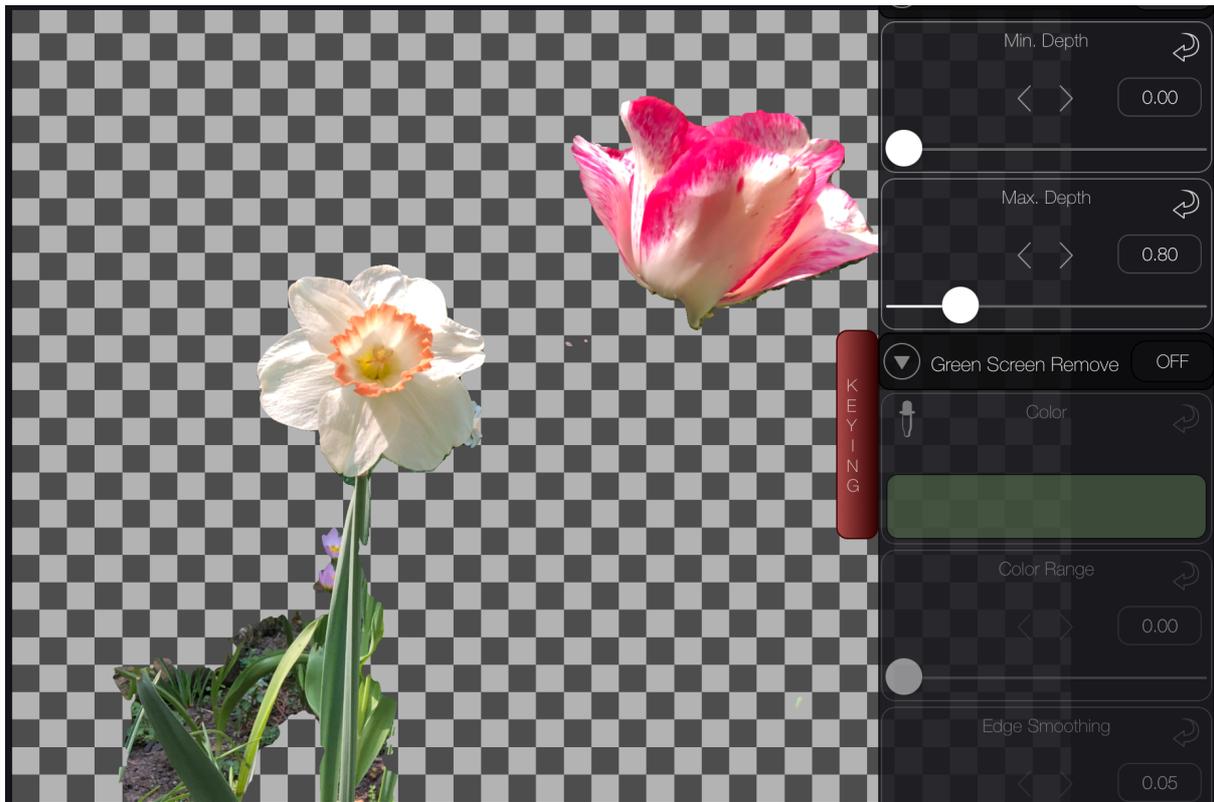
Similar to the Color Cutter filter, the Depth Cutter filter is off per default. Once you turn it on, change the values of the front and back depth sliders. Depth keying react quite strongly to small value changes, so using the increment and decrement sliders is often a good way to work.

Depth Cutter can be used in conjunction with garbage masks and also the Color Cutter filter; Color Cutter can help with removing some of the fringe that can remain after adjusting a depth key.

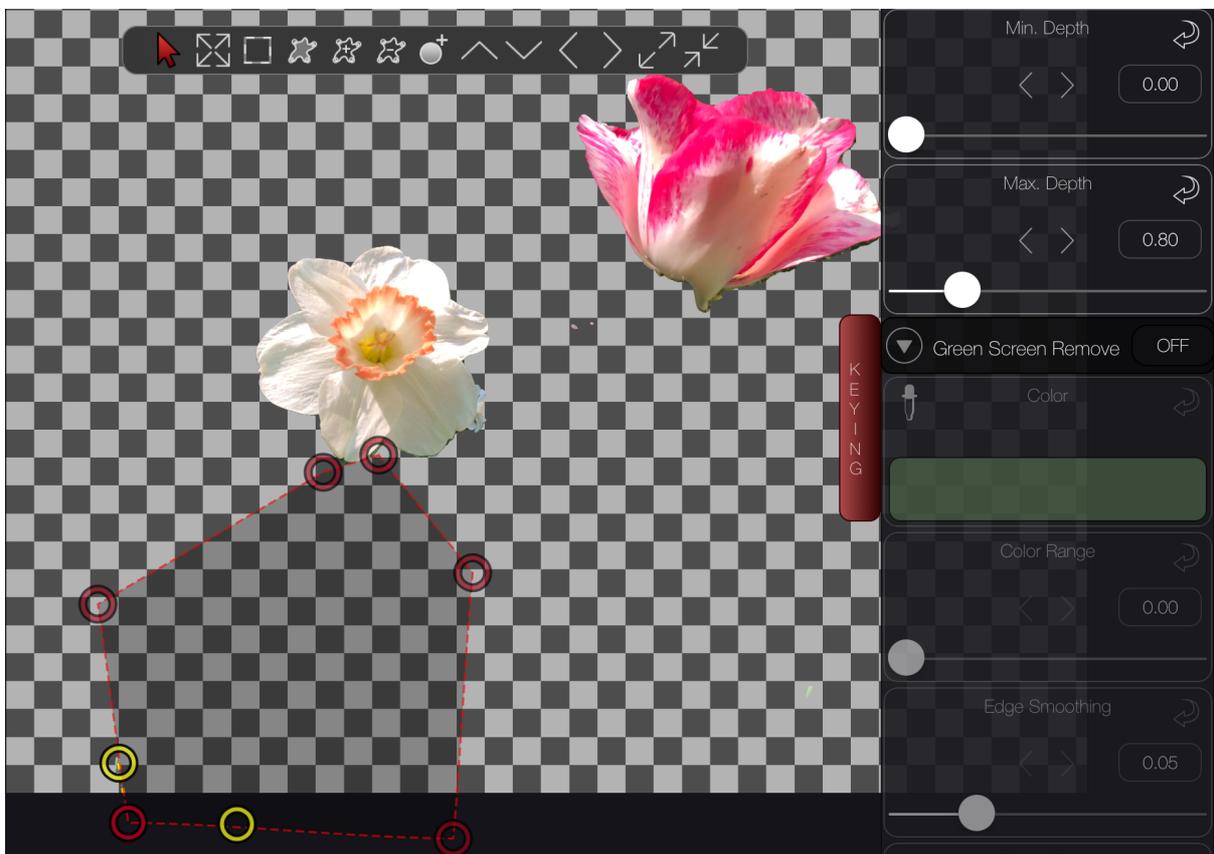
Depth image with Depth Cutter filter visible, defaulted to off.



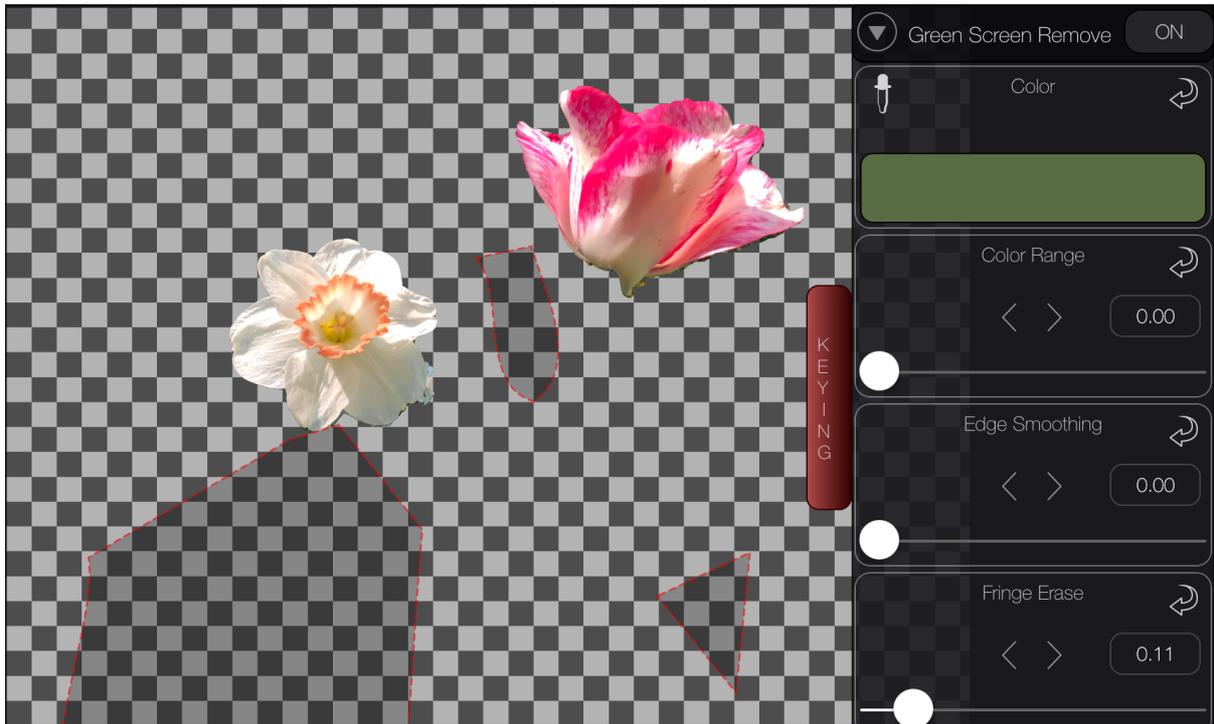
Depth Cutter on, with back depth changed, in order to remove parts of the image further away from the camera, leaving the foreground flowers.



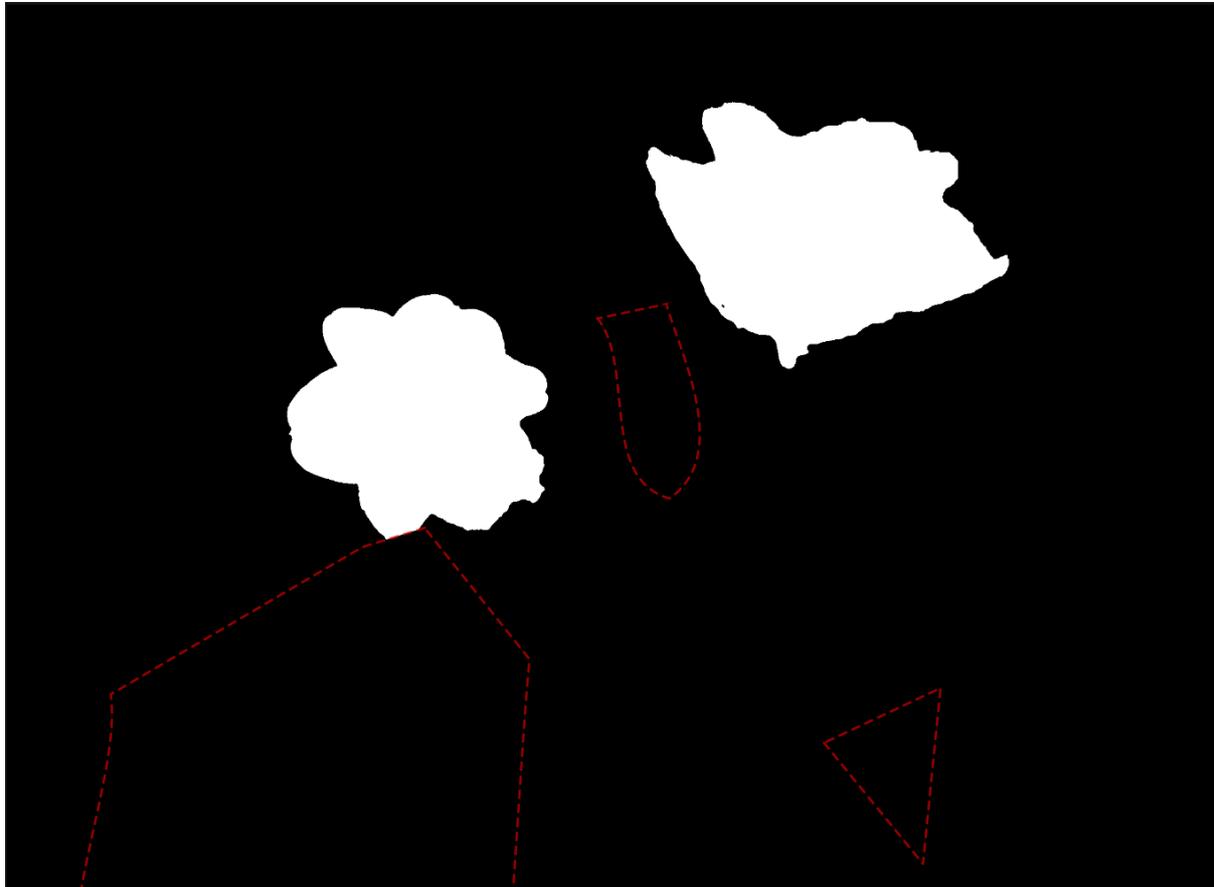
In order to get rid of the green stems, add a subtract mask.



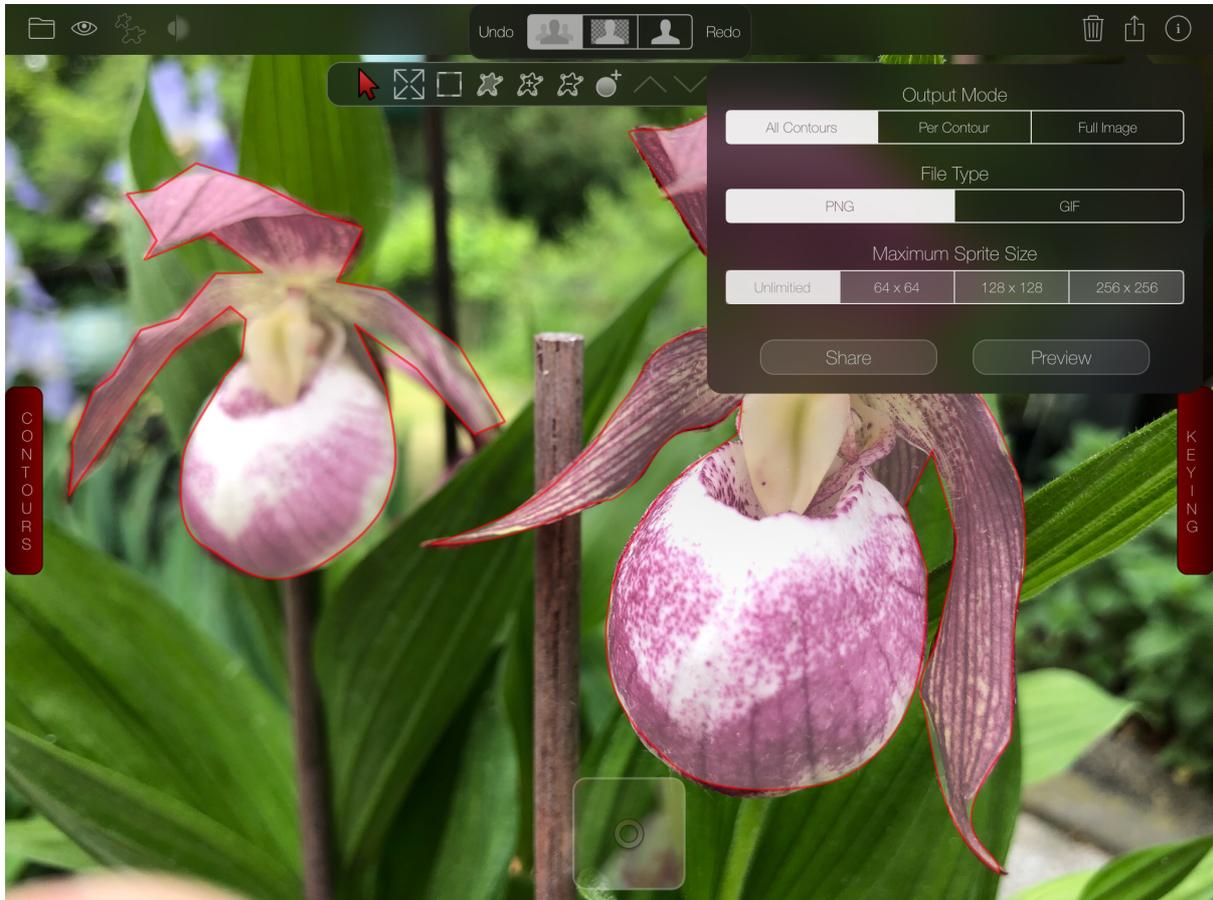
Lastly, you can turn on the Color Cutter filter to remove some fringe.



Final Mask



## SHARING / RENDERING



### OUTPUT MODE



You can output all contours as one image. The image size will be large enough to contain all contours.



You can output each contour as a separate image. Each image size will be large enough to contain the contour.





If you have full image, the entire image will be saved. This mode is often used in for projects where keying is on.

#### FILE TYPE

The file type can be PNG or GIF, both with transparency.

#### MAXIMUM SPRITE SIZE

The maximum sprite size is available in per contour mode. It will try to ensure that no sprite exceeds the maximum size.

#### SHARE

The share button will open the share popover, with access to all your favorite modes of sharing, from air drop to dropbox

#### PREVIEW

At any time you want to preview what your creation looks like, you can press the preview button. This will render a small example of your image, with transparent areas over a checkerboard.



# GESTURES

## PICK MODE

- Tap on a point will select it
- Tap and move on a point or tangent handle will move the point
- Tap and move anywhere NOT on a point will pan the workspace
- Two finger pinch will zoom the workspace
- Double tap on a red point will break and smooth the point
- Double tap anywhere not on a point will fit the workspace

## TRANSFORM MODE

- tap and move to move the contours around on the screen

## MARQUEE SELECTION MODE

- Tap and move to make a marquee selection box

## ADD CONTOUR MODE (CLIP, ADD AND SUBTRACT CONTOURS)F

- Tap to add a point
- Tap and hold to add a point and immediately drag tangent handles
- Double tap to add the last point and close the contour

## ADD POINT MODE

- Tap and hold on a contour edge to make the insertion point visible, drag to place