

# Animate with Easy-to-Use and Free Pencil2D Software

Use Pencil2D to quickly create animated videos

**Summary:** There are many 2D animation products available. Some are complicated and have GUIs that are crowded with dozens of tiny items that require training for even basic operations. Also, some products are expensive. In contrast, Pencil2D is simple yet highly capable. It enables users to complete all animation steps, including sketching, drawing line art, and painting, and do so in an easy and straightforward way. Additionally, it is free, open source, and cross-platform. These are some of the reasons why it meets the needs of many users in its well-established and active user community.

## Introduction

There are numerous software products available for creating 2D animation. However, some of these products are complicated to use and have GUIs that are crowded with an overwhelming number of small tools, icons, controls, options, settings, and labels. Attempting to perform even basic operations in these applications can be frustrating and require a significant amount of training. Also, some of these products are expensive, costing hundreds of dollars a year.

Pencil2D is an alternative to these types of products, since it is simple, easy-to-use, free, and open source. With Pencil2D you are able to focus on creating great animation instead of trying to figure out how to use a tool. Also, Pencil2D is highly capable, so you can use it for all animation steps, including sketching, drawing line art, and painting. Additionally, in it you can manipulate frames that contain your artwork in a timeline, control a camera's view of these frames, and output animated videos.

Below are a few sections on 2D animation software. The first one provides brief information on some of the products available. Following this is a section that presents more information on the functionality in Pencil2D, and then one to help you understand how you can use Pencil2D to perform animation steps.

## Animation software

Before providing detailed information on Pencil2D in subsequent sections, a bit of information on some other products that can support 2D animation is presented below in Table 1. This can help you understand the range of products available and understand where Pencil2D fits in with them.

Although only a small sample of products is presented in this table, it is clear there are many choices available for users with different needs. As per the first row in the table, Pencil2D is best for users that want a basic, although highly-capable, product that is easy to use and free.

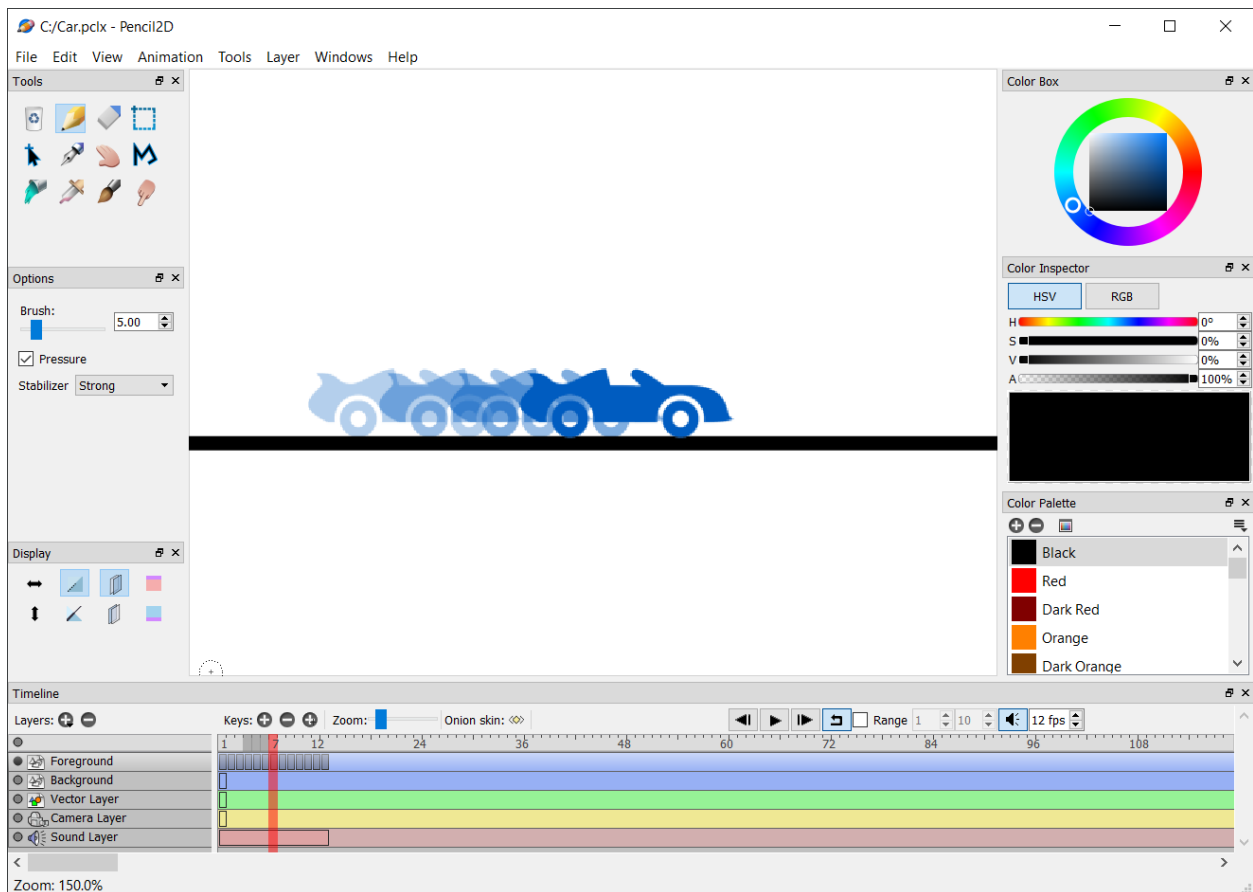
Category	Product	Site	Description
Free and open source	Pencil2D	<a href="http://www.pencil2d.org">www.pencil2d.org</a>	It provides basic functionality and is easy to use.
	OpenToonz	<a href="https://opentoonz.github.io/e">https://opentoonz.github.io/e</a>	It has mid-level capabilities for 2D animation.
	Synfig Studio	<a href="http://www.synfig.org">www.synfig.org</a>	It has good support for tweening, in which frames that are between keyframes are automatically calculated.
	Blender	<a href="http://www.blender.org">www.blender.org</a>	It provides 3D animation functionality that usually does well in comparison tests. Functionality for 2D animation was recently added to it.
Free and paid versions	Powtoon	<a href="http://www.powtoon.com">www.powtoon.com</a>	It is simpler and has fewer features than most.
	Animaker	<a href="http://www.animaker.com">www.animaker.com</a>	It is very user-friendly and provides a large selection of characters and templates for users.

Category	Product	Site	Description
Paid	Adobe Animate	<a href="http://www.adobe.com/products/animate.html">www.adobe.com/products/animate.html</a>	Multiple pricing plans are available, including one for \$239.88 per year.
	Toon Boom Harmony	<a href="http://www.toonboom.com/products/harmony">www.toonboom.com/products/harmony</a>	Multiple pricing plans are available, including one for Harmony Essentials for \$185 per year and another for Harmony Premium for \$905 per year.
	TVPaint	<a href="http://www.tvpaint.com">www.tvpaint.com</a>	It costs €500 (about \$542) for a license.

**Table 1** Animation Software Categories and Sample Products

## Overview of Pencil2D

In Pencil2D, the GUI is user-friendly and intuitive. Consequently, you can quickly start animating with it and not have to go through a long learning curve. In the GUI, which is shown below in Figure 1, there are at most seven panels displayed around the canvas in the center. These include one for tools (shown in the upper left), one below it for associated tool options, three for colors (shown on the right), and one for the timeline and layers (shown at the bottom). Note that these panels can be moved, undocked, and hidden as needed.



**Figure 1** Pencil2D's User-Friendly GUI

Also, you can set the GUI to run in any of over 20 languages, and you can run Pencil2D on Windows, macOS, and Linux.

## Helpful features to create your artwork

Pencil2D provides needed functionality, so you can sketch, draw line art, paint, and revise your artwork. This includes the following functionality:

- **Useful bitmap and vector layers.** You can draw and paint in bitmap (raster) and vector layers, using as many layers of each as needed.
- **Relevant tools.** Pencil2D provides 11 easy-to-understand and useful tools you can use and configure to create your artwork. Also, four of these tools allow you to achieve subtle effects by using pressure sensitivity on tablets.
- **Convenient color selection.** The color palette displayed in Pencil2D supports having custom colors, and you can import and export custom palettes. Also, HSV and RGB color models are supported.
- **Configurable onion skin.** To help create successive frames, you can configure the number of previous and next onion skin frames displayed and the maximum and minimum opacity used in them.
- **Image importing.** If needed, you can import images in various file formats created in other applications, such as those with unique functionality, to use in Pencil2D.

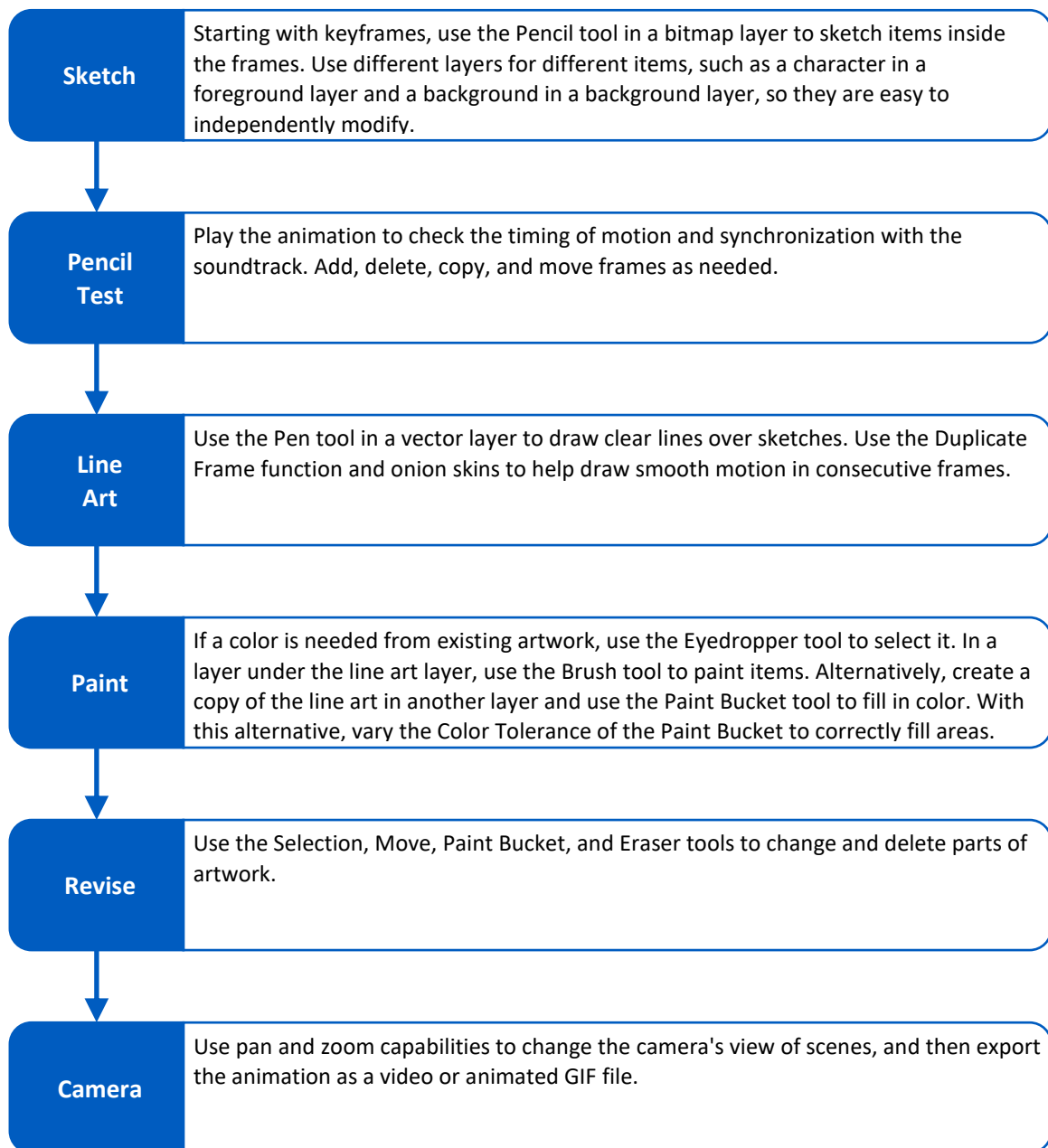
## Straightforward animation of your artwork

Pencil2D provides simple but complete functionality, so you can create animations of your artwork and then export them in multiple formats.

- **Frames.** Easily insert, delete, copy, and move frames in the timeline to create and revise animations.
- **Camera layers.** You can have one or more camera layers and pan and zoom in them to best tell a story to viewers.
- **Sound layers.** Although Pencil2D does not support recording audio, you can import MP3 and WAV files for dialog and a soundtrack into multiple sound layers.
- **Videos and GIFs.** You can export animations in video files in multiple formats, including MP4, and in animated GIF files.

## Animation process using Pencil2D

The main steps in the animation process and a summary of the main ways you can use Pencil2D to accomplish them are shown below in Figure 2. In this process, steps and groups of them are repeated as needed. For example, pencil tests are usually done a few times during the process, as changes are made and more frames are added.



**Figure 2** Animation Steps and Accomplishing Them with Pencil2D

As made clear in this figure, Pencil2D enables users to complete all animation steps and do so in a straightforward way.

## Conclusion

There are many software products available for creating 2D animation. Some are complicated and have GUIs that are crowded with dozens of tiny items that require training for even basic operations. Also, some products are expensive, costing hundreds of dollars a year. In contrast, Pencil2D is simple yet highly capable. It enables users to complete all animation steps, including sketching, drawing line art,

and painting, and do so in an easy and straightforward way. Additionally, it is free, open source, and cross-platform. These are some of the reasons why it meets the needs of many users in its well-established and active user community.

## Contact Information

For more information on Pencil2D, including video tutorials on it, visit [www.pencil2d.org](http://www.pencil2d.org). You can also download Pencil2D at this site, as well as at <https://github.com/pencil2d/pencil> and <https://bitbucket.org/chchwy/pencil2d>.