

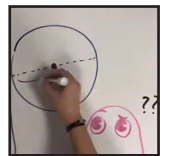
# ANIMATED VIDEOS RESOURCE

Creating an animated video is a great option for teams who want to participate in the Math Video Challenge, but can't meet in person to film a scene together.

## Animation Style

The first step in creating an animated video is deciding on a style. Here are a few different animation styles that teams have used in the past (but there are certainly more):

1. Stop Motion - This is a style of animation where objects are physically moved in small increments. A picture is taken after each movement, and when all those pictures are put together, you see the objects in motion. [See examples of this style at mathcounts.org/animated-videos.](https://mathcounts.org/animated-videos)
2. Computer Illustrated - Using a computer animation app is another option for creating an animated video. These apps let you draw objects directly in the program or select from pre-made illustrated objects. Then, you can manipulate how those objects change or where they are located in the frame to create animation. [See examples of this style at mathcounts.org/animated-videos.](https://mathcounts.org/animated-videos)
3. White Board - This style of animation is done by filming live drawing on a white board (or paper). The drawing process takes a long time, so the video is played back at a much faster speed to give it an animated feel. [See examples of this style at mathcounts.org/animated-videos.](https://mathcounts.org/animated-videos)
4. Static Image - This simple style of animation is created by displaying still images and playing recordings of dialog or narration. Using a video editor you can combine images with your audio recordings. [See examples of this style at mathcounts.org/animated-videos.](https://mathcounts.org/animated-videos)



## Tools & Apps

After you've decided on a style you will need the right tools or software for that style.

If you're creating something that involves stop motion, you will need a camera, smart phone or tablet to take pictures and a stop motion program to animate those pictures.

If you would rather make a computer illustrated video, then you need an animation program.

For the white board style, you would just need a simple video editor that allows you to change the playback speed of your video recording. This style can also be accomplished digitally by using the same type of programs used for computer illustrated animations.

To create a static image animation you would just need a camera, smart phone or tablet to take pictures and a simple video editor to combine images and audio recordings.

There are lots of different animation software to choose from, so you may want to try out a couple programs to see what works best for you.

No matter which you choose, you will probably also want to include sounds or dialog in your video. Some of these programs will let you import audio clips directly into the program and some will not. If the program selected doesn't allow for this, then you will need to use a video editor to pull together the animation you created with the audio you want to add.

## Tips for Creating Good Animated Videos

Once you have the right tools, you are ready to get started! Here are some suggestions to help you make the best animated video possible:

- Create a storyboard - Before you start writing your script or creating your animation, you should know what is going to happen in each scene. If you aren't meeting in-person, this is a great way to make sure everyone agrees on what is going to happen in each part of the video. [Download our storyboarding template.](#)
- Watch past submissions - Watching other videos is a great way to help you decide specific elements you want to incorporate (or avoid). [The Math Video Challenge - Animated Video Spotlight includes a number of animated submissions from past years.](#)
- Record dialog multiple times - Recording multiple takes of each line of dialog will give you more options to work with when you are editing your video together. This is especially important if team members are each independently recording their own parts of dialog.
- Make sure your audio is clear - One advantage of an animated video is you have a lot more control over the audio quality in your video (you can record dialog anywhere you choose). Pick somewhere quiet, turn off anything that makes noise, and make a test recording. Listen to the test recording to see if there are any adjustments you need to make (to your recording equipment or environment), and then start your real recording.
- Videos don't have to be 5 minutes long - It can take more time to create an animated video than a filmed one. Although 5 minutes is the maximum length for video submissions, there is no minimum length. Some of the best animated submissions have only been 3 or 4 minutes long.

## Recommended Software

There are lots of different apps, programs and websites you can use to create animations. To help you get started we have listed some popular ones below.

At the time this document was created these programs were appropriate for creating Math Video Challenge videos, but future updates could affect their usability for the challenge. Before choosing a program please do your own independent review to confirm it will meet your needs. **Also note, these programs may require a purchase or subscription to unlock certain features.**

- Pencil2d Animation - [www.pencil2d.org](http://www.pencil2d.org)
- qStopMotion - [qstopmotion.org](http://qstopmotion.org)
- Renderforest - [www.renderforest.com](http://www.renderforest.com)
- Stykz - [www.stykz.net](http://www.stykz.net)
- Wave.video - [Wave.video](http://Wave.video)