



# Stop Motion Animation Challenge

Learn to create fun animations by participating in the Illinois 4-H Stop Motion Animation Challenge!

## In this challenge, youth will:

1. Learn about stop motion animation
2. Practice video planning and storyboarding
3. Explore software used to make stop motion animations
4. Channel their creativity to make their own animated film

## Challenge resources:

- [Challenge Overview video](#) on YouTube
- [Stop Motion Storyboard Worksheet](#)
- [Stop Motion App Tutorial](#) on YouTube

## Challenge details:

Access the challenge resource materials above, which are hosted on the Illinois 4-H website at <https://4h.extension.illinois.edu/programs/home-activities>. For this challenge, youth will create a stop motion animation that is between 5 and 15 seconds long. Stop motion animation is a filmmaking technique where objects are moved by very small amounts and captured one frame, or picture, at a time. When these pictures are played back quickly, one after another, the resulting video gives the illusion of motion (like a flip book). To make your own stop motion animation, you'll need a phone or tablet with an installed stop motion animation software (in the tutorial we're using Stop Motion Studio's free version: download it for [iOS](#) or [Android](#)). Youth with experience with stop motion who want to use a regular camera and other editing software can do so, but no technical support will be provided.

Watch our [challenge overview video](#), and check the list below for some tips to help you be successful in your filmmaking:

### Planning

- Set your phone or tablet up on a tripod or stand so that it doesn't move during filming.
- Make sure that your device is fully charged, and that you have ample storage space available to store your photos (a 10 second video could use as many as 100 pictures).
- Pick an area to film that has controlled lighting (away from windows and skylights).
- Brainstorm ideas for what you want to happen in your animation and collect a few materials like characters or props. Then create a storyboard of your movie before you begin filming. Use our [storyboard worksheet](#), or create your own.
- After you storyboard, collect any additional materials you may need for your animation, and then set up your backdrop and filming area.

### Filming

- Only move your objects (characters and props) a little bit between taking each picture.
- Use the timer feature in the Stop Motion program to minimize the need to touch the tablet or phone, and to help speed up the filming process and make it more efficient.
- Use the "ghost image" feature to help you see what happened in the previous shot as you adjust your new shot (this is especially helpful if you accidentally nudge your camera or props and they get out of place).
- To get a smoother video, set the frames per second (fps) between 8 and 10. The higher the number, the smoother the animation will be. The default for the software is 5 fps.

# Illinois 4-H At-Home STEM Challenge

## Editing & Sharing

- If you want to pay for additional features in the app (parent/guardian permission required), you can add things like sound effects, music, a title screen, and end credits to your film. You can also export your file to another video editing program to add these effects.
- Use the save feature to save the final movie to your device or to the cloud so you can share your work with family and friends.

Once you finish your movie, share it with your family, friends, or 4-H Club. Make sure you have parent/guardian permission before you share, and be sure your video doesn't have identifying information in it like your full name. You also can share your video on social media by using the hashtag #thats4H and/or by tagging "Illinois 4-H." Happy animating!

## Questions?

Email [amyh@illinois.edu](mailto:amyh@illinois.edu) or visit <https://4h.extension.illinois.edu/programs/home-activities>

## Want to learn more about 4-H near you?

Find your local 4-H office at [go.illinois.edu/FindYour4HOffice](http://go.illinois.edu/FindYour4HOffice) or learn more about Illinois 4-H at [4h.extension.illinois.edu](http://4h.extension.illinois.edu)

## Did you have fun with this challenge?

Here are additional resources that may interest you:

- **How to Make a Cardboard iPad Stand for Stop Motion Videos** (Instructables): <https://www.instructables.com/id/Cardboard-iPad-Stand/>
- **Make Your Own iPad Stand** (Bob Vila): <https://www.bobvila.com/slideshow/make-your-own-ipad-stand-10-cheap-and-clever-ideas-44411#make-your-own-tablet-stand>
- **Quick and Cheap iPhone Stand for Stop Motion** (Instructables): <https://www.instructables.com/id/Quick-and-Cheap-iPhone-Stand-for-Stop-Motion/>
- **DIY Animation: What is Stop Motion Animation and How to Try it at Home** (StudioBinder): <https://www.studiobinder.com/blog/what-is-stop-motion-animation/>



Resource originally produced by Amy Henschen for DuPage, Kane & Kendall County 4-H.

If you need a reasonable accommodation to participate in this program, please contact your local University of Illinois Extension office.

Early requests are strongly encouraged to allow sufficient time for meeting your access needs.

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