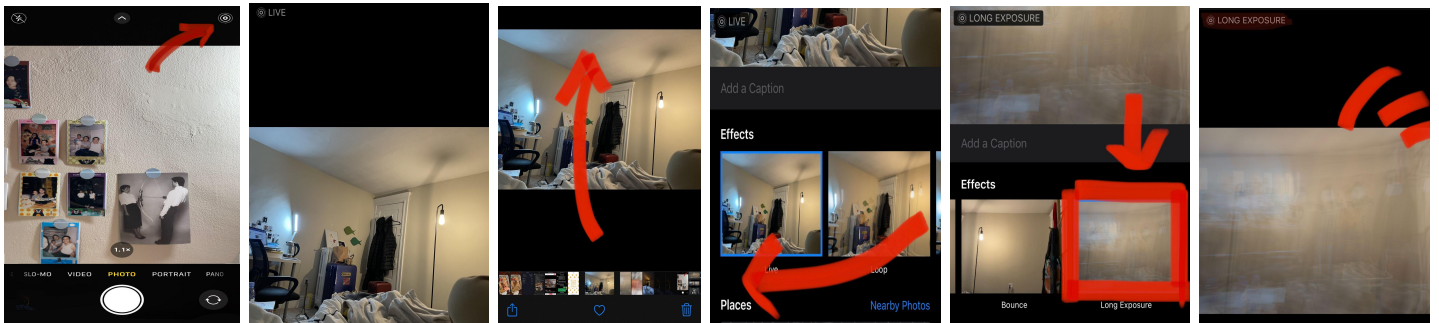# Tips & Tricks

Motion in that Wipsy Light
Can you paint a poster with light?

Setting Up Your Device

IPhone will give you 3 seconds to paint!

Stablizing Your Device

Or... build one!

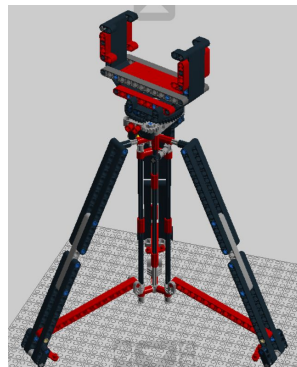[LEGO IPhone Tripod Tutorial](#)

Figure [1] iphone tripod
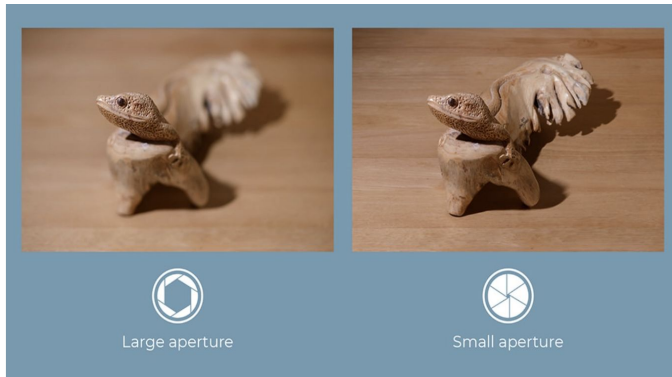

Figure [2] LEGO tripod

Think about ...

- **How to create a low light environment?**

Tufts UNIVERSITY | School of Engineering Center for Engineering Education and Outreach

Camera Explained

Motion in that Wipsy Light

Can you paint a poster with light?

Aperture

Large aperture — Small aperture

Aperture can be defined as the opening in a lens through which light passes to enter the camera.

Notice the change in background.

ISO

ISO 200 — ISO 3200

ISO is simply a camera setting that will brighten or darken a photo.

A photo taken at too high of an ISO will show a lot of grain, also known as *noise*, and might not be usable.

Shutter Speed

Shutter speed is the length of time the camera shutter is open, exposing light onto the camera sensor.

The first big effect of it is motion blur.

Made by: Irina Mengqi Wang
v12.15.2021

Motion in that Wipsy Light

Can you use camera to capture motion and light?

Think Like an Engineer:

What's the motion you want to capture? Think about time, speed, distance, and path, and the direction of the motion, How do you build a robot/artifact to capture the exact effect?
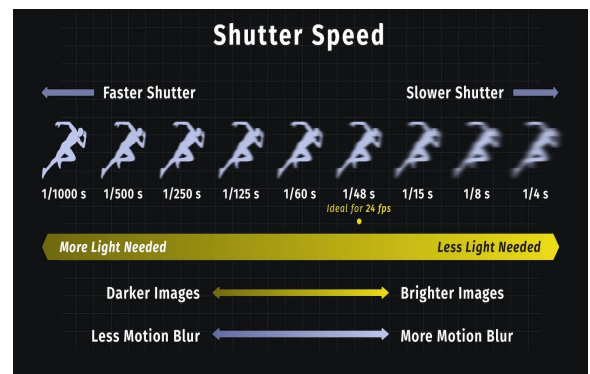

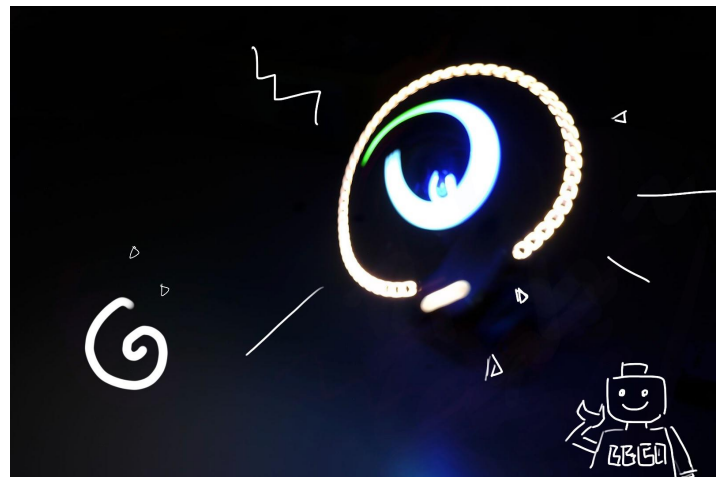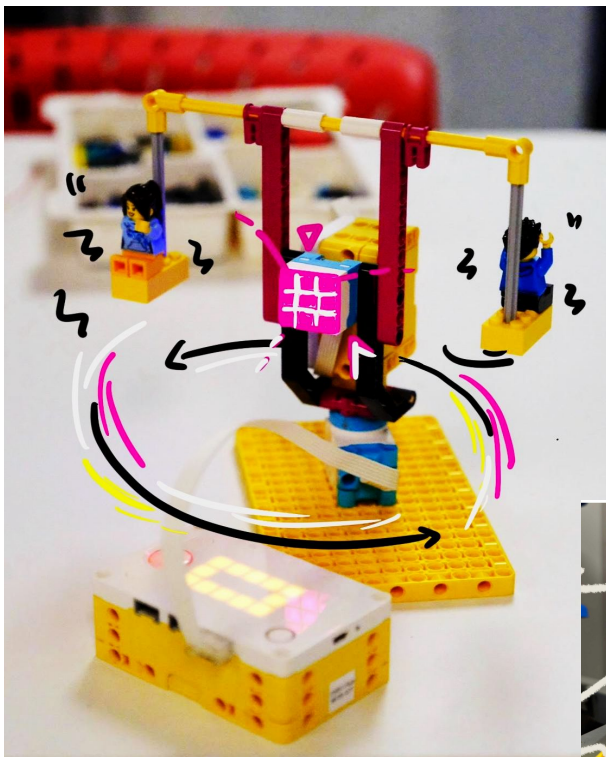## Think Like a Photographer

How much light do you want to capture? Determine the proper shutter speed depending on much motion you want your photograph to convey to the viewer.

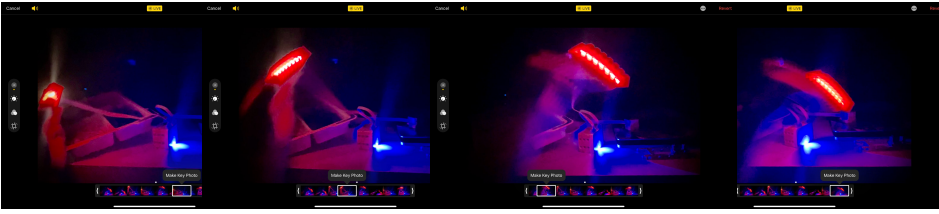## Idea Gallery

How do you create these shapes?

Work & photo credit to Yume, Owen, Ziyi, Jenn, David, Olga, Mohammod, & Chris.
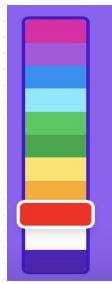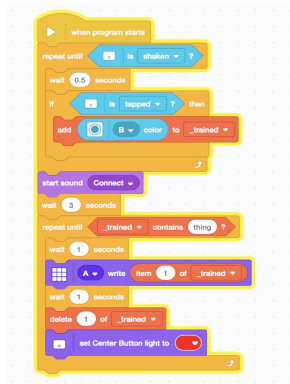
Making the Image

1/ Trace the path with hands ✅

2/ Use motors to draw with patterns ✅

3/ Train your hub to add colors ✅

[Starter's code](#)

Notes

What did/can I do to make the motion more precise?

What did/can I do to add artistic values?

More Challenges

Can you make an image that capture crisp motion of discontinuous moments in time?

Sequence photography is a technique of shooting a series of images in where the subject is captured in successive motion.

Try this:

- Try different speed and interval combo, and program it.
- Sequence photo with multi-exposure or stacking with photoshop. Try doodling!

Don't forget to document your work!

Making the Image

1/ Trace the path with hands ✅

2/ Use motors to draw with patterns ✅

3/ Train your hub to add colors ✅

Pause & Think

What did I do to make the motion more precise?

What did I do to add artistic values?

More Challenges

Can you make an image that capture crisp motion of discontinuous moments in time?

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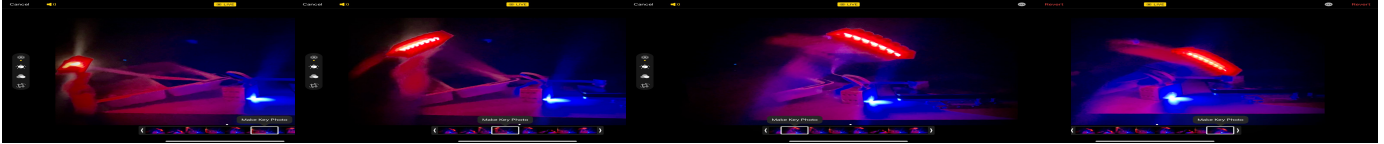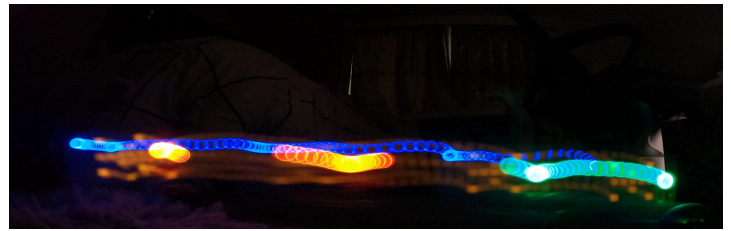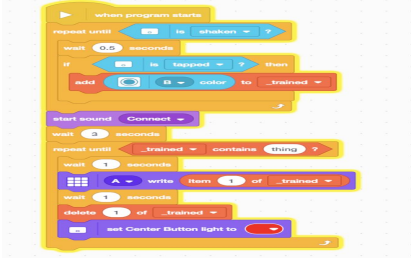
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- Sequence photo with multi-exposure or stacking with photoshop. Try doodling!

[4] When to apply double exposure in photos and film. https://clipchamp.com/nl/definition/what-is-double-exposure/
[5] A beginner's guide to composition. https://www.pinterest.com/pin/634866878707171873/
[6] Photography Lighting. https://www.pinterest.com/pin/533958099545650016/

Don't forget to document your work!