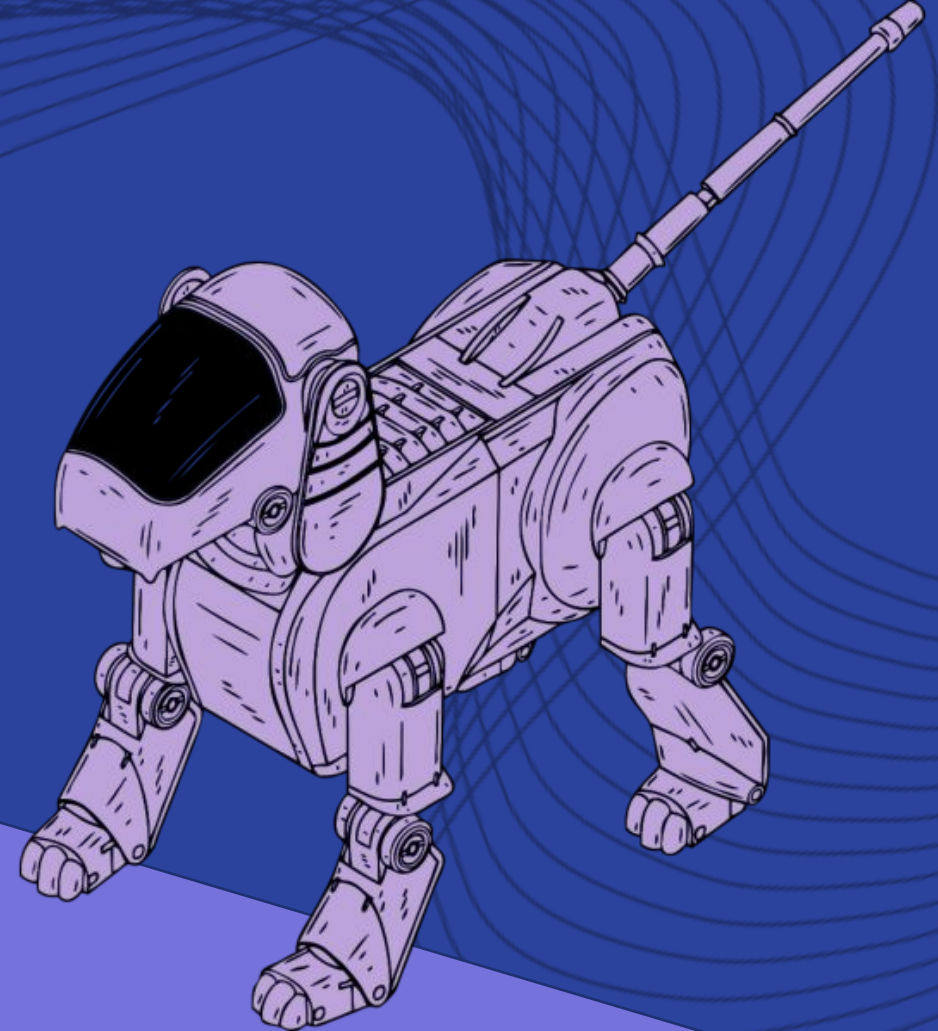


LEGO Spike Breakdancing Robot

Level 2 – Scratch

At Home



Introduction

One of the best ways to relax and relieve stress is to put on some music and have a dance! But dancing can be boring when you're by yourself...



Task

LEGO Breakdancing Robot

In this project, you will make a breakdancing robot buddy who will dance along with you to all your favourite songs!

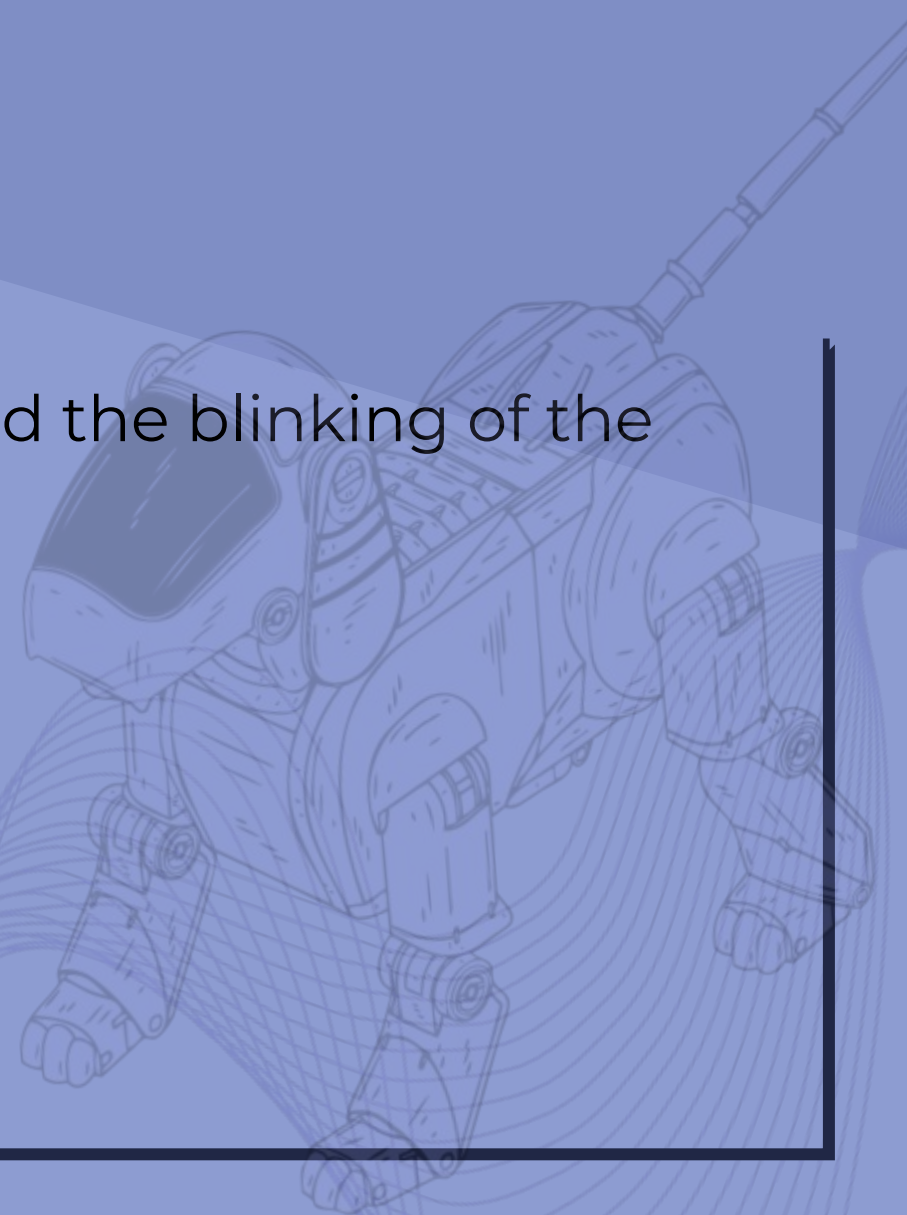
We will be using the [LEGO Spike Prime Kit](#) for this resource.



Process

LEGO Breakdancing Robot

- Build your LEGO robot.
- Code the movement of the legs, arms and the blinking of the light matrix.
- Make it your own!



Step 1

Build the LEGO Spike Breakdancing Robot

Before we can code our robot, you need to assemble it!

Legs



18 steps

Click [here](#) for the instructions for building the Legs

Body



15 steps

Click [here](#) for the instructions for building the Body

Step 2

Setting up the hub

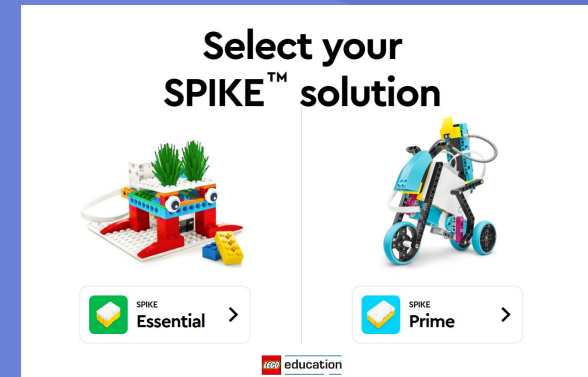


LEGO® Education SPIKE™ App

Before we can start programming our hub, we need to load up the LEGO Education Spike App.

The app is compatible across most devices, like iOS and Android.

You can also access it online – click [here](#) to open the web app.

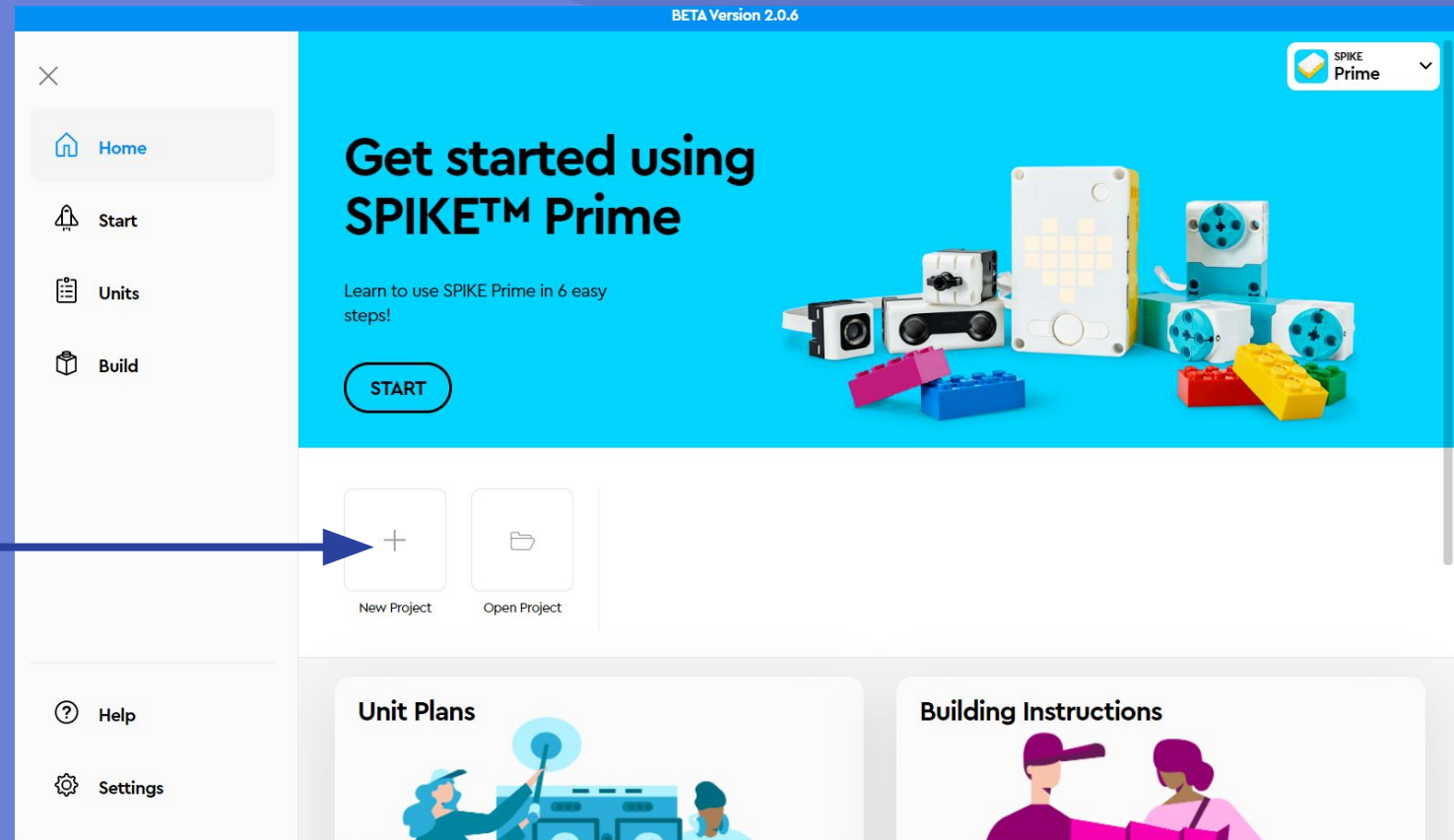


Select the SPIKE Prime option.

Step 3

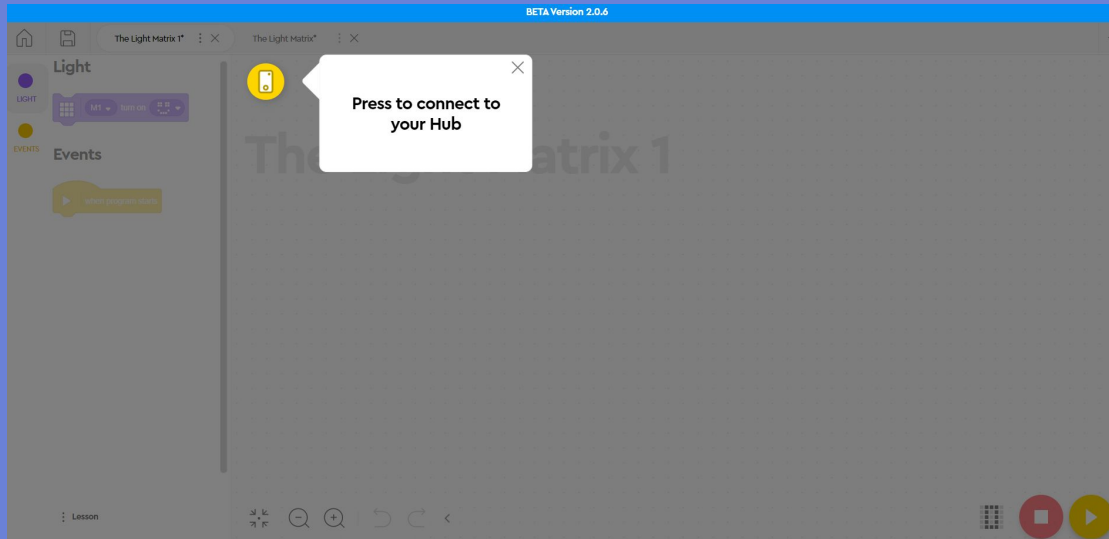
Load onto the Spike website or app

Click the 'New Project' button



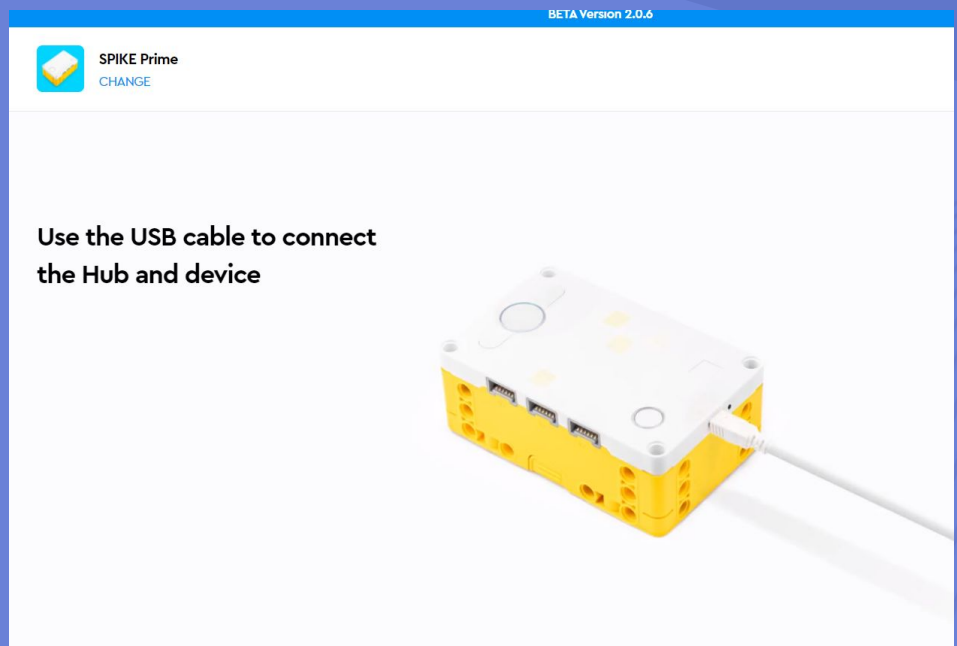
Step 4

Connect your hub



Click the button in the top left corner to connect your Hub.

You can connect your Hub via Bluetooth or using a USB cable.

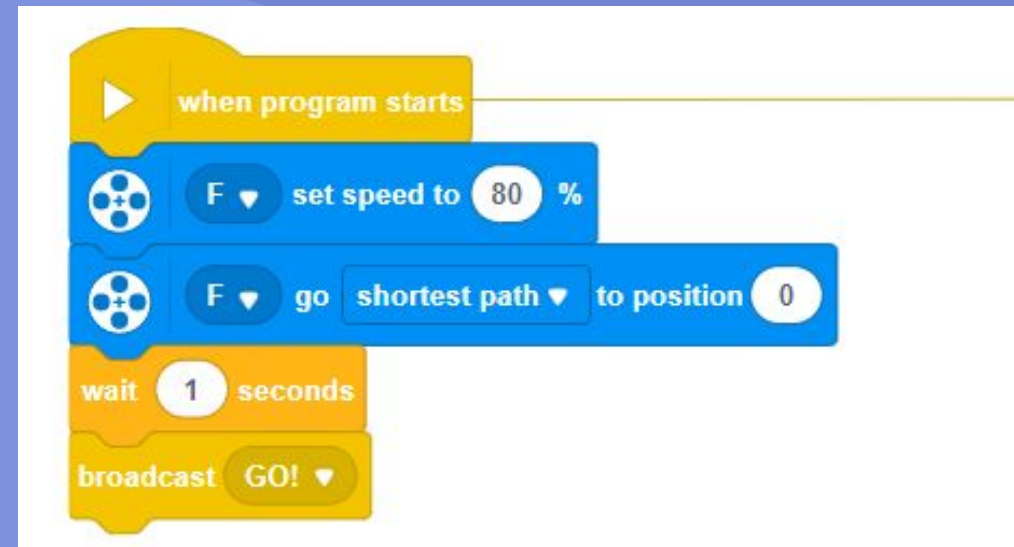


Step 5

Syncing the legs of our robot

Drag and drop these code blocks into the central code panel.

This stack places the “break dancing” robot in position, ready to dance!



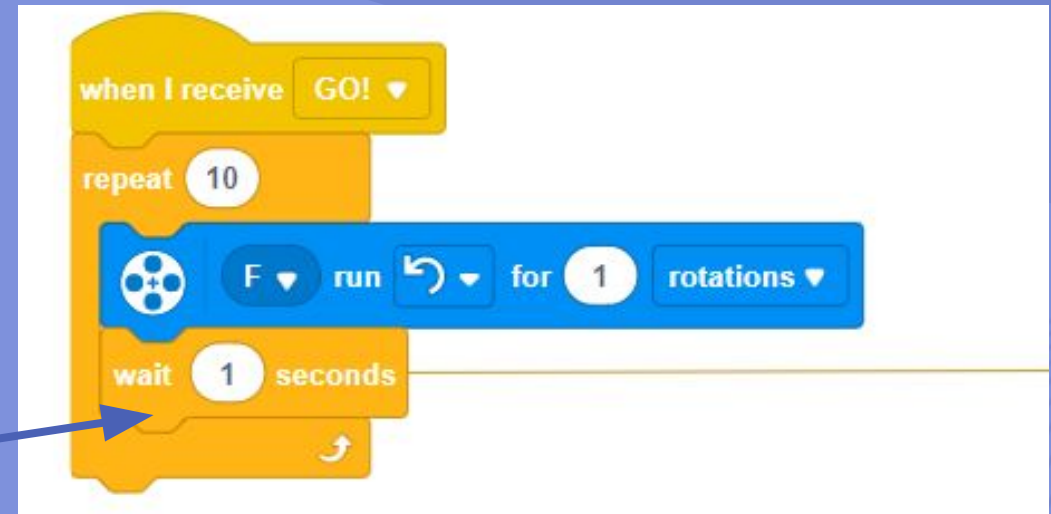
Step 6

Syncing our robot's legs

Next, drag and drop these code blocks into the central code panel.

This stack will turn the motors 10 times.

You can adjust the timing here to mess with how in sync your robot is with the music!

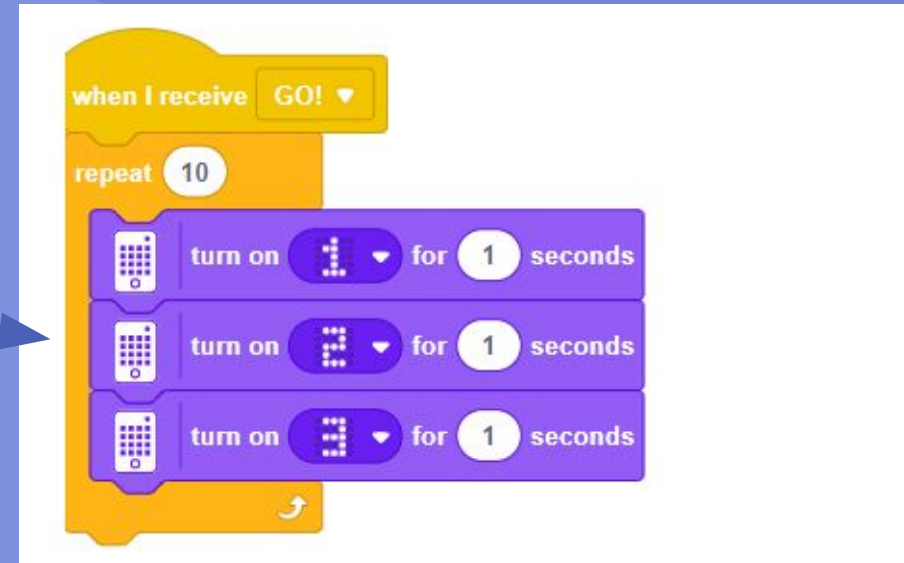


Step 7

Syncing our robot's legs

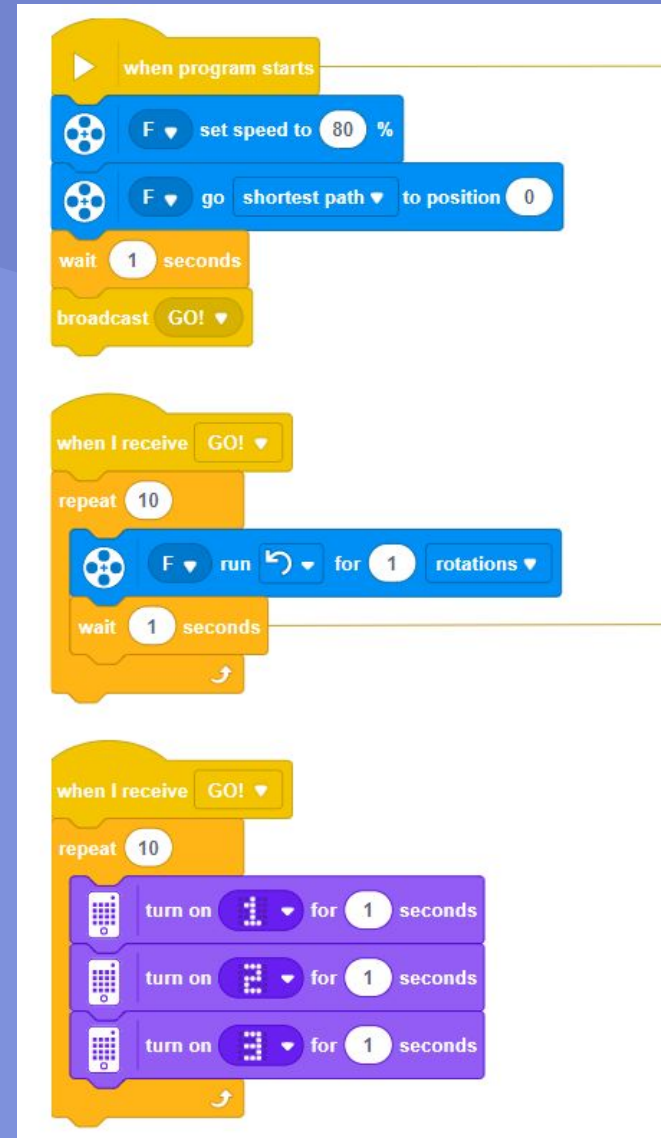
Next, drag and drop these code blocks into the central code panel.

This stack will light up the matrix on the hub!



At this stage, only our robot's legs seem to be dancing!

A true dancer uses their whole body so...



...change your code to incorporate the motors for both the arms and legs



Conclusion

Learning outcomes

- ✓ Learn to sync up the hub
- ✓ Experiment with different timings to make your robot dance in fun ways!
- ✓ Use code to change the output of a device!

Congratulations!

You have completed the project

