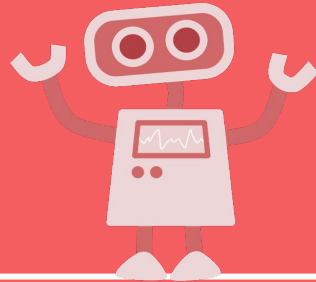


Day Five Wrap-Up



Today's Plan

Learn about solving mazes

Put our Lego Robotics skills to the test with a final challenge!

Maze Solving

We are going to go outside and practice solving mazes

...without using our senses!

Like solving a maze in the dark!

Some of you will be blindfolded and will not be able to see the maze at all

The others have to determine the instructions that your teammates will use to solve the maze



Maze Solving

Rules:

You cannot speak to the maze runners after they begin “executing” their instructions

Round 1: Only use basic instructions: go straight for 5 steps, turn right, etc

Round 2: Can use “repeat until” instructions

The maze runners will execute one instruction at a time

Maze runner will start at the START line. The goal is to get as close to END as possible.

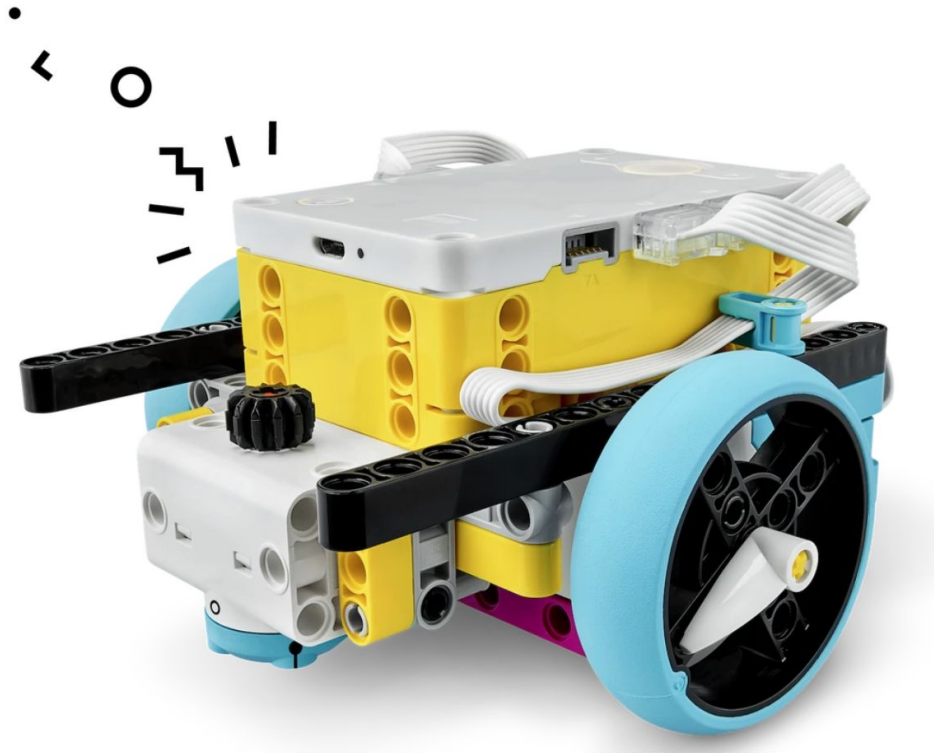
Maze runners cannot remove blindfold until instructed to do so



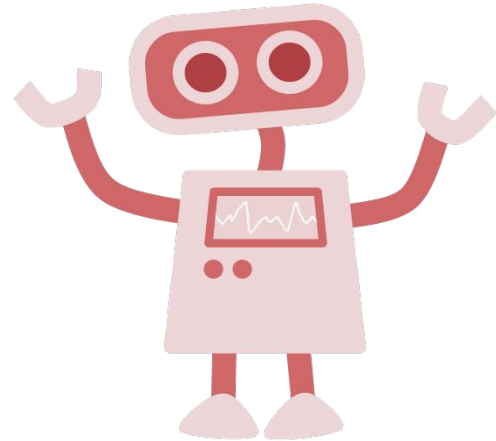
Mazes!

Now is the time to put all you have learned this week to the test! You will use **Crazy Mazie** complete a maze using all of the sensors you have seen this week! You will complete this maze using the ultrasonic sensors, color sensors, and bump sensor.

Build



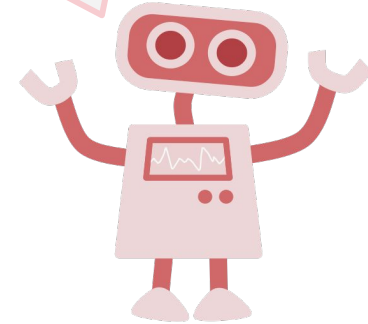
This week you will build a simple driving base you can style and customize!



Goal



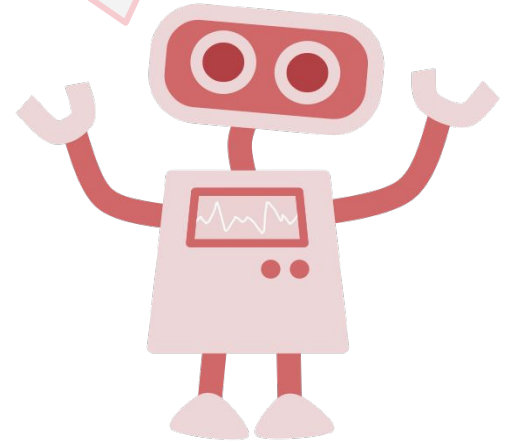
You will need to attach the **touch**, **ultrasonic**, and **color** sensors however you can to complete the whole maze!



Lab Hints

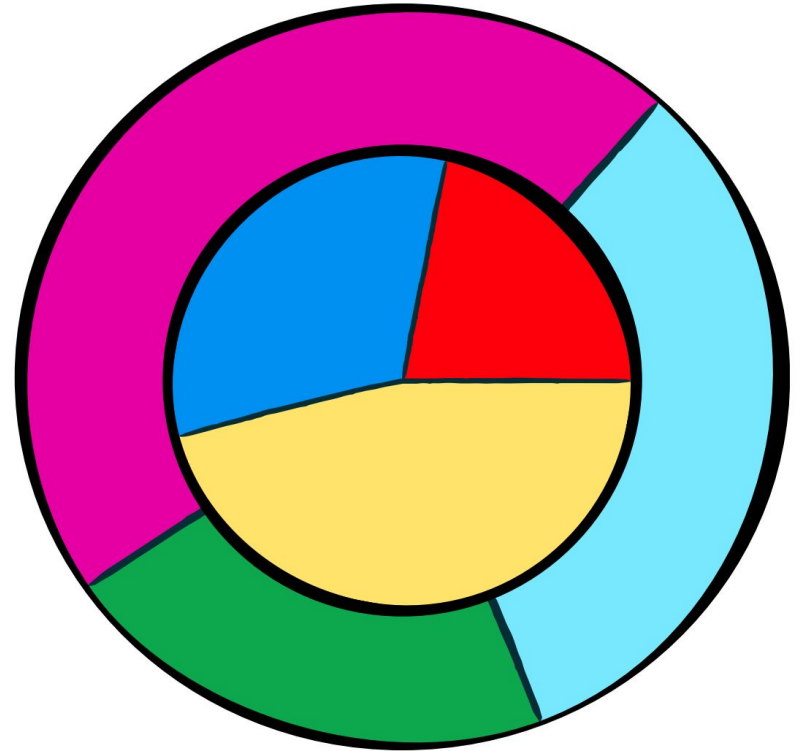
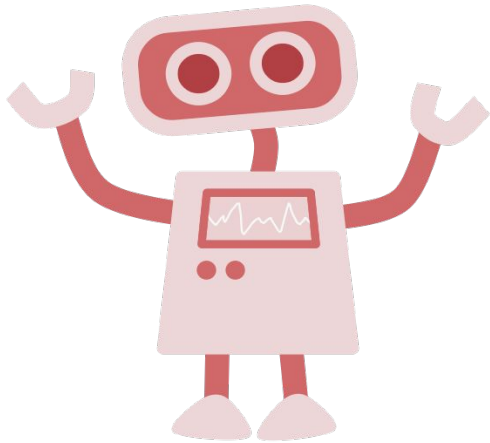


The yellow bricks are half the height of the red bricks, so position the ultrasonic sensor on the base such that it can see the red, but not the yellow when it drives close. This way, yellow can indicate one direction to turn and red can indicate the other direction to turn.









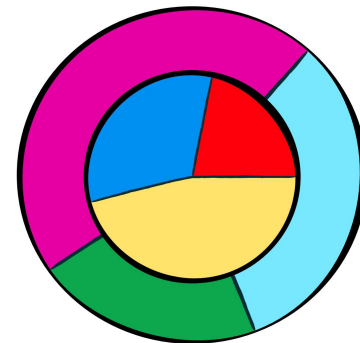
More Fun

Once you complete the maze, park your robot on one color on the dial for an extra task!

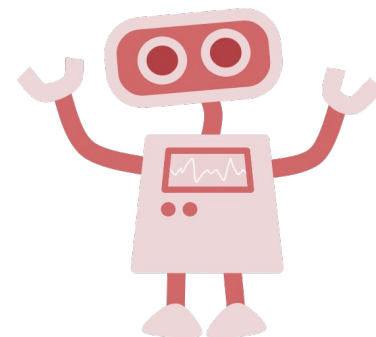


Colors

Action	Time Effect
	Subtract 3 seconds from your time!
	Go again and subtract 3 seconds from your next time!
	Add 3 seconds to your time.
	Record your time as is!
	Go again.
	Go again and add 3 seconds to your next time.



Try to get the fastest time through the maze on the scoreboard!



Pre-Lab

Using the driving base and the bump sensor, make the robot drive to a block, bump it, then turn right and go around the block. This will prep you for the final maze!

