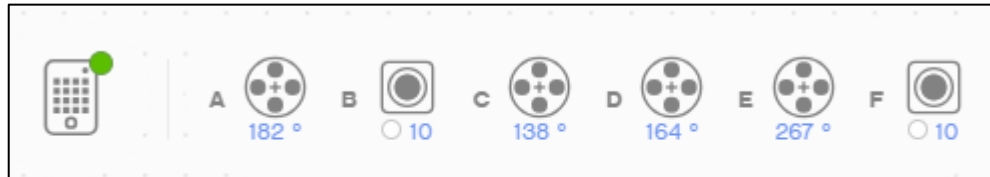# VIEWING SENSOR VALUES

BY ARVIND SESHAN
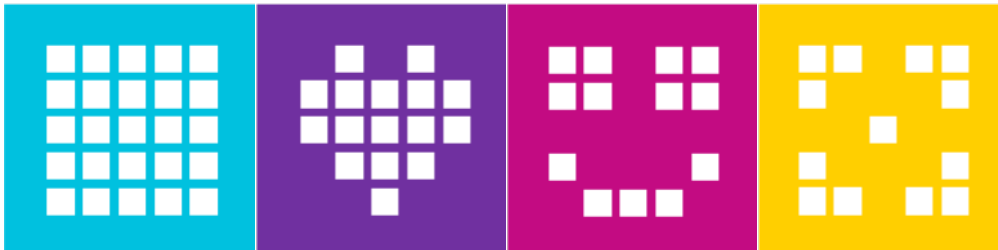
LESSON OBJECTIVES

■ Learn how to view sensor values on SPIKE Prime

WHY DO YOU NEED SENSOR DATA?

- Sensor data can be….

    - Used to help program more easily (no more guess and check!!)

    - Used to help program more accurately

    - Used to debug code as well as build issues

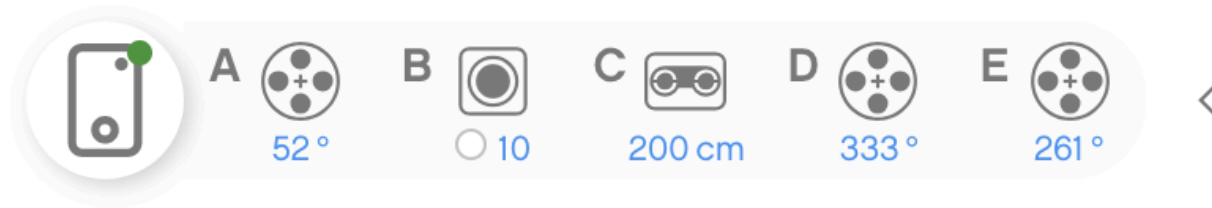- SPIKE Prime has no screen, but you can still view sensor data using the Hub Dashboard

YOU MUST BE CONNECTED TO HUB
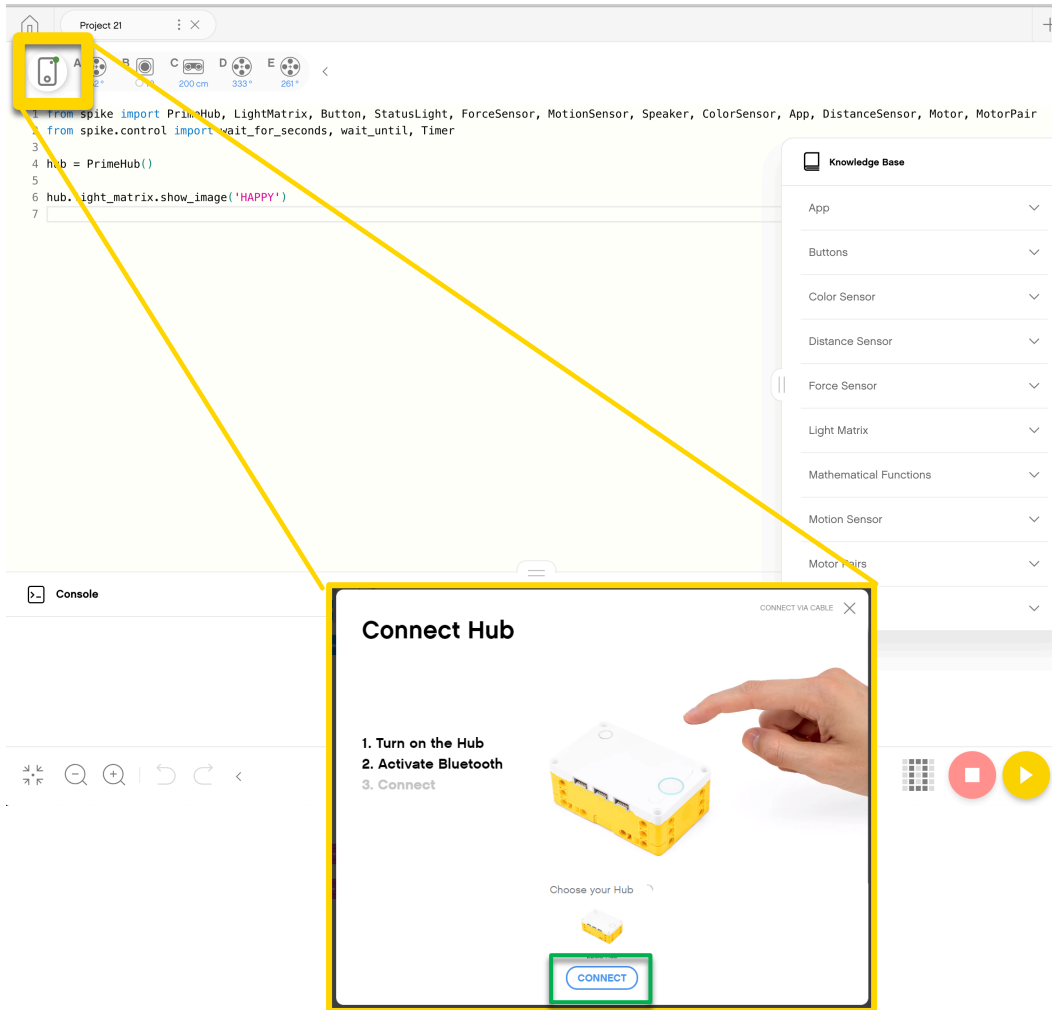
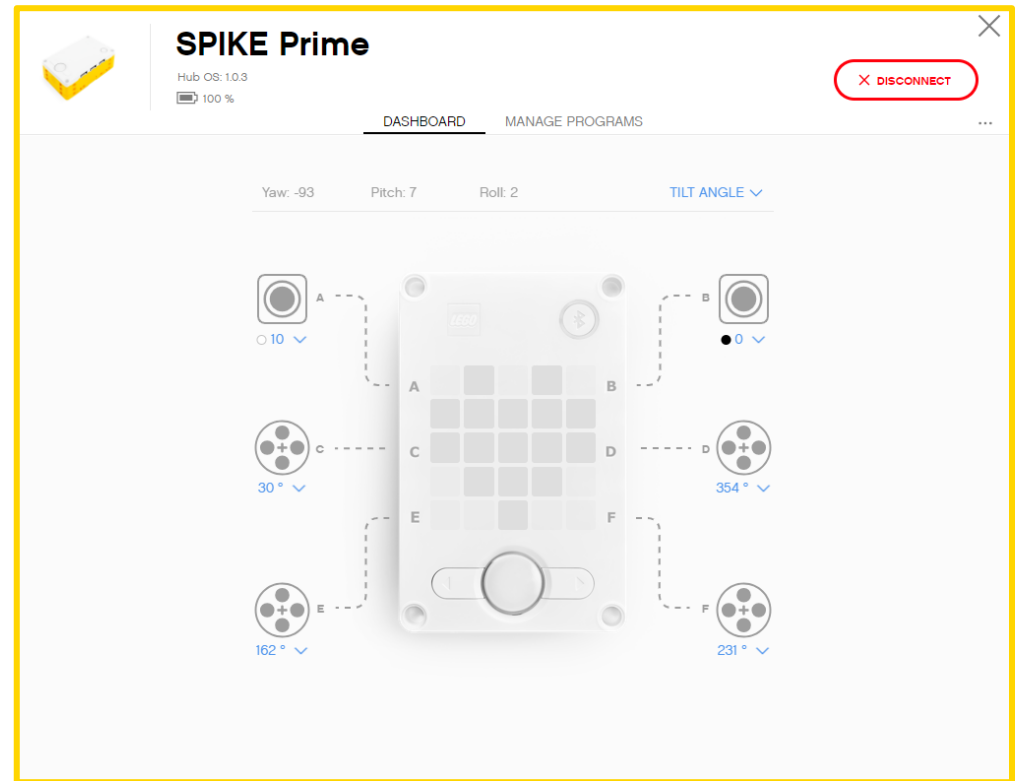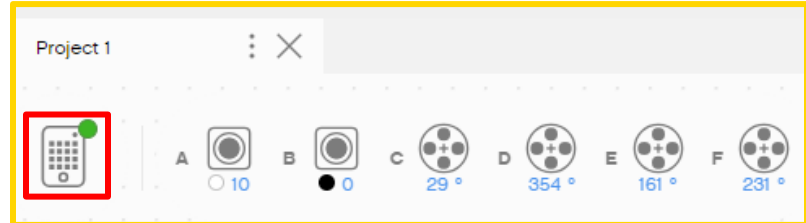- To view any sensor data, you must first be connected to the Hub

SENSOR VALUES ON PROJECT PAGE

■ Once connected to the Hub, Sensor and Motor Values are visible on the top of each Project page

SENSOR VALUES ON DASHBOARD

■ Clicking on the SPIKE Prime Hub Icon takes you to the Hub Dashboard where you can see more sensor data
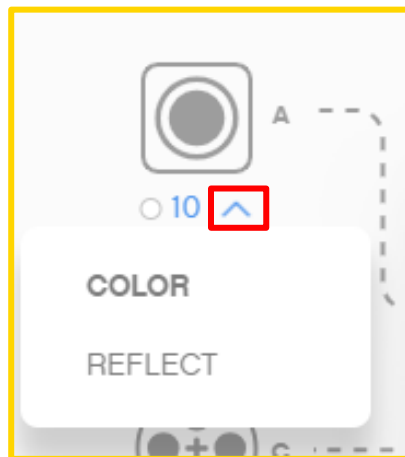
MORE SENSOR DATA ON THE DASHBOARD

- From the Hub Dashboard, you can also see a lot of additional information about each sensor and motor you have connected to the hub

- Select the mode using the down arrow

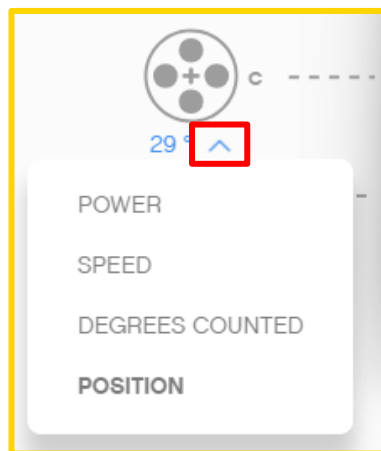- You can also see values for the built-in gyro sensor
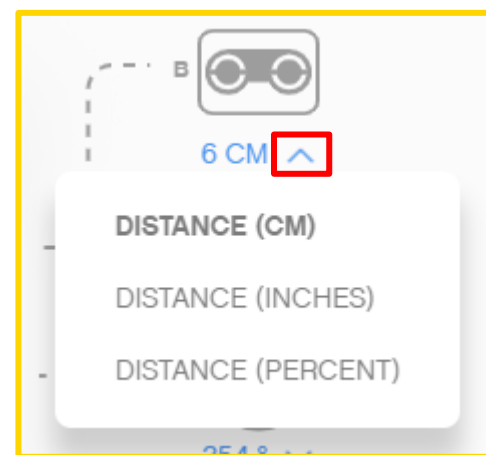
Gyro Sensor
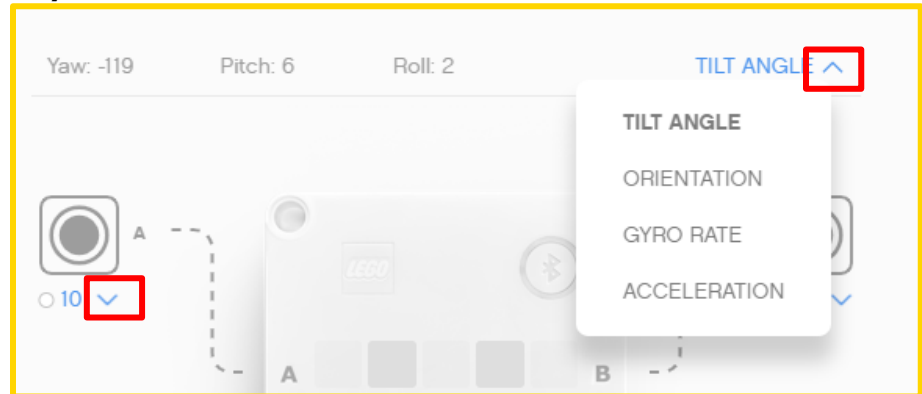
Color Sensor

Force Sensor

Distance Sensor

SENSOR DATA IS POWERFUL

- Sensor data can help you program better and also help you debug your code

- As you go through the rest of our lessons, you will use this feature often.

- As you complete each challenge, think about how knowing sensor data might help you.

- The next page has many several examples to think about.

WHEN CAN SENSOR DATA CAN HELP?

- **Reduce Guess-and-Check:** I want my robot to turn a particular amount, but I am not sure how much to turn without guessing.

- **Debug Code:** The robot does not follow the green line like I programmed it to do. Why not? What color does the robot think that green line is?

- **Check Builds:** I built my robot with the Force sensor a little bit inside the robot. I am not sure that the Force sensor is getting pressed enough. How can I make sure the sensor is getting pressed?

- **Test Sensors:** I told my robot to stop when the Distance sensor is 20cm away. But it seems to stop earlier. Is the sensor working correctly? How can I see what the Distance sensor sees?

CREDITS

- This lesson was created by Arvind Seshan for SPIKE Prime Lessons
- More lessons are available at www.primelessons.org