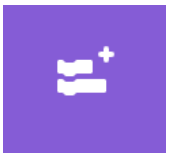
Colour Sensor

Register/login at https://scratch.mit.edu

Detect the colour of Lego bricks and change the colour of the light on the BOOST to match it.

- Create a new Scratch project and add the **LEGO BOOST** extension.



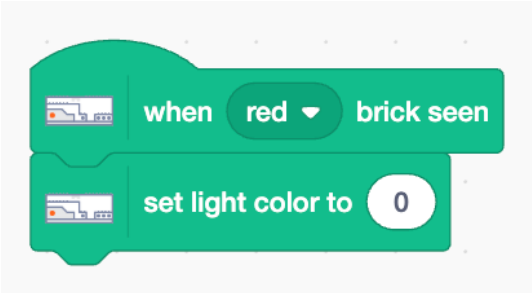
Connect the BOOST

- Click on the BOOST blocks section. If you see  then click it, press the green button on the BOOST and click **start searching**.

- The light on the BOOST should turn **blue**.
  If it connected OK then press **Go to Editor**.
- If it goes wrong reset the BOOST by holding the green button for 10 seconds and try again.

Colour Sensor

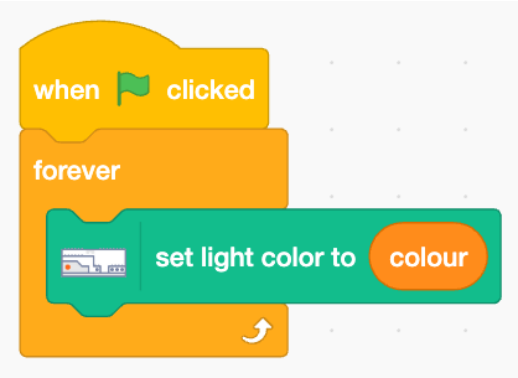
- Plug the colour sensor into the BOOST.
- Add code (any sprite) that detects when a **brick colour is seen** and **sets the light colour** *to match the colour of the brick*.



Try it by holding a red Lego brick in front of the sensor.

*The sensor can detect different colour bricks. What colour number do we use for the light? The colour **hues** are arranged on a wheel, numbered from 0 (red) to 99. There's no hue for black or white.*

- Duplicate your code to detect different colour bricks. Add blue, green, and yellow (don't worry about white or black).
- Create a variable called colour and turn it into a **slider** (right-click on the variable in the output).
- Add code (right) to find matching colours.

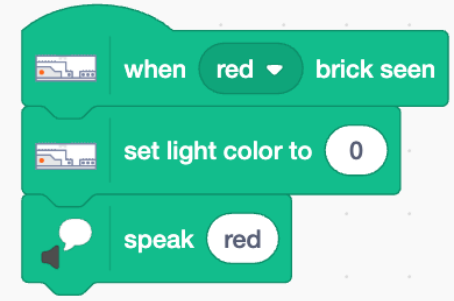


Run the code and adjust the slider to match the brick colour.

- When you've found the right colour code, you must **stop** it running otherwise it keeps changing the colour.
- use the colour code to **set the light colour**.

Text to Speech

- Add the **Text to Speech** extension
- Add extra code right to each of your brick detectors to **speak** the colour. Just type in the name of the colour.



***Save** your code with a good name.*

File > Save now