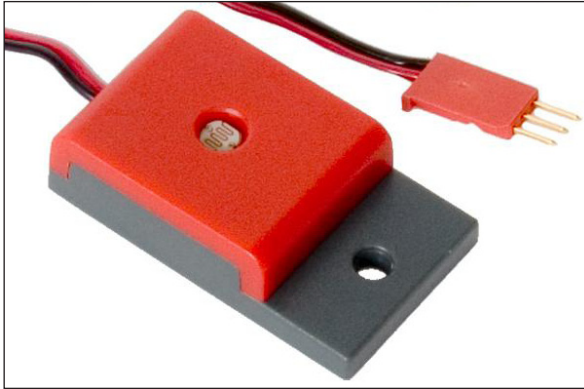# **Light Sensor** Overview
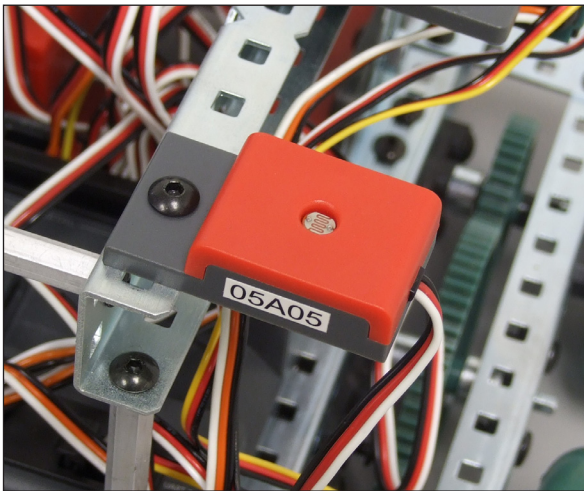

The Light Sensor for VEX

The VEX light Sensor allows the robot to sense the ambient light in a room. Unlike the Line Tracking Sensor, the Light Sensor does not generate any light, it only senses the amount of light already present in an area.

The Light Sensor is an analog sensor, and it returns values in the range of 0 to 4095. Higher values indicate that the sensor is in a darker area, and lower values indicate lighter areas.

A Light Sensor on a Vex Robot

Some uses of the Light Sensor would be to have your robot stop moving whenever the lights in a room are swtiched off, or to sense when it moves into a shadow.

When attaching the Light Sensor to your Robot, remember that it reads ambient light, so that it functions best when facing out into an open space.

The Light Sensor can reliably sense light from up to six feet away from a light source. The sensor only senses visable light, and is not sensitive to infrared or ultraviolet light.

Note: Remember that it is important to calibrate your Light Sensor by calculating a threshold value. For more help on calculating thresholds, see the "Thresholds" reference document.

Light Sensor Natural Language Sample Code

Forward Until Dark

This code has the robot use a Light Sensor to move forward until it enters a dark area and then stop. This code uses a Light Sensor wired to Analog Port 2.

```
task main ()
{
  robotType(recbot);    //Specifies the robot type

  forward(63);          //Move forward at power level 63
  untilDark(500);       //Wait until the Light Sensor sees values
                        // that represent a dark area.
                        // The threshold value is 500

  stop();               // Stop.
}
```

Forward Until Light

This code has the robot use a Light Sensor to move forward until it enters a light area and then stop. This code uses a Light Sensor wired to Analog Port 2.

```
task main ()
{
  robotType(recbot);    //Specifies the robot type

  forward(63);          //Move forward at power level 63
  untilLight(500);      //Wait until the Light Sensor sees values
                        // that represent a light area.
                        // The threshold value is 500

  stop();               // Stop.
}
```