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Introduction To Sensors – Lesson 8: Light Sensor

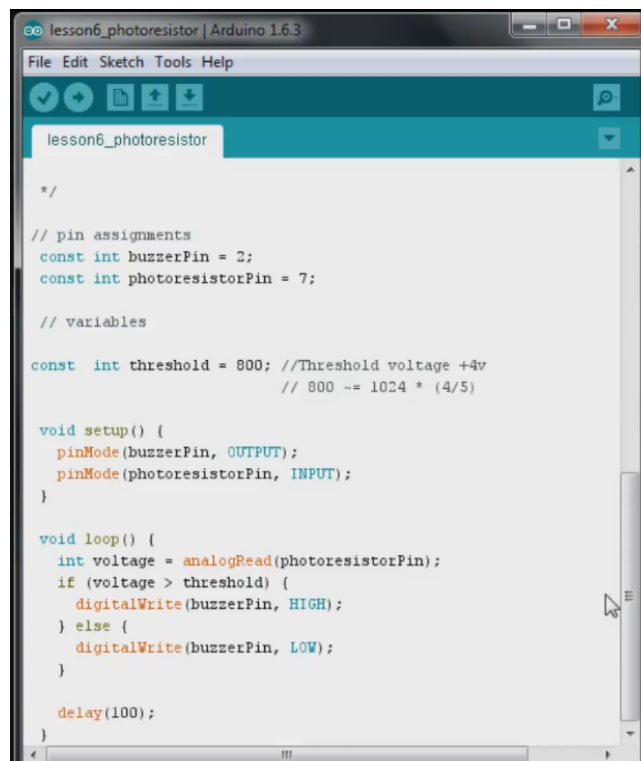
FORMULAS

The following formulas and information are meant to go with the online lesson found here:
<http://www.pyroelectro.com/edu/sensors/light/>

LESSON 8 ARDUINO PROGRAM

In this lesson's program we set it up for one input and one output. The sensor gives input to an analog pin and forces an output from a digital pin which toggles the pcb buzzer board.

It's a simple program, but make sure you understand each line before you continue to build the experiment. (The program has a typo calling it lesson 6, this program is indeed meant for lesson8)



```
lesson6_photoresistor | Arduino 1.6.3
File Edit Sketch Tools Help
lesson6_photoresistor
*/
// pin assignments
const int buzzerPin = 2;
const int photoresistorPin = 7;

// variables
const int threshold = 800; //Threshold voltage +4v
                          // 800 ~= 1024 * (4/5)

void setup() {
  pinMode(buzzerPin, OUTPUT);
  pinMode(photoresistorPin, INPUT);
}

void loop() {
  int voltage = analogRead(photoresistorPin);
  if (voltage > threshold) {
    digitalWrite(buzzerPin, HIGH);
  } else {
    digitalWrite(buzzerPin, LOW);
  }

  delay(100);
}
```

ADDITIONAL INFORMATION

If you have any questions about the formulas or information found in this document, please feel free to head on over to the forums and ask us some questions!

<http://www.pyroelectro.com/forums/viewforum.php?f=27>