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Introduction To Microcontrollers Electronics – Lesson 3: Input and Output

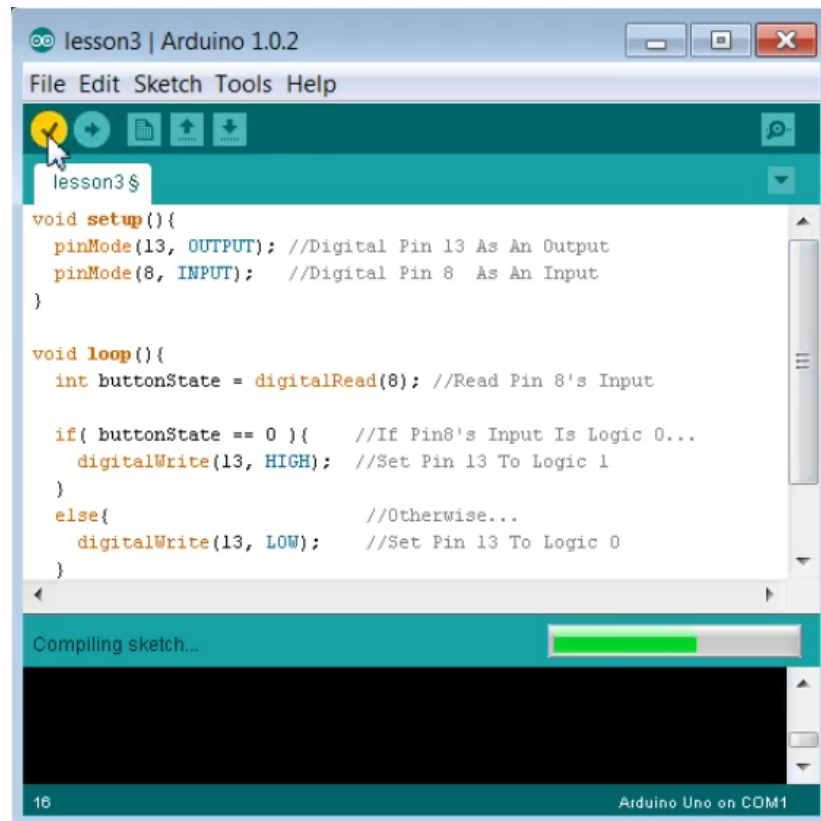
FORMULAS

The following formulas and information are meant to go with the online lesson found here:
http://www.pyroelectro.com/edu/microcontrollers/input_output/

EXAMPLE ARDUINO PROGRAM

In Lesson 3 we explored the concepts of GP I/O or general purpose i/o.

To do that we built a circuit that used a push button and an LED to give input and show output. The code for that program can be seen to the right in the Arduino sketch that we used in the lesson.



```
lesson3 | Arduino 1.0.2
File Edit Sketch Tools Help
lesson3 $
void setup(){
  pinMode(13, OUTPUT); //Digital Pin 13 As An Output
  pinMode(8, INPUT);  //Digital Pin 8 As An Input
}

void loop(){
  int buttonState = digitalRead(8); //Read Pin 8's Input

  if( buttonState == 0 ){ //If Pin8's Input Is Logic 0...
    digitalWrite(13, HIGH); //Set Pin 13 To Logic 1
  }
  else{ //Otherwise...
    digitalWrite(13, LOW); //Set Pin 13 To Logic 0
  }
}

Compiling sketch...
16 Arduino Uno on COM1
```

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=25>