

Lab – 2 Datasheet

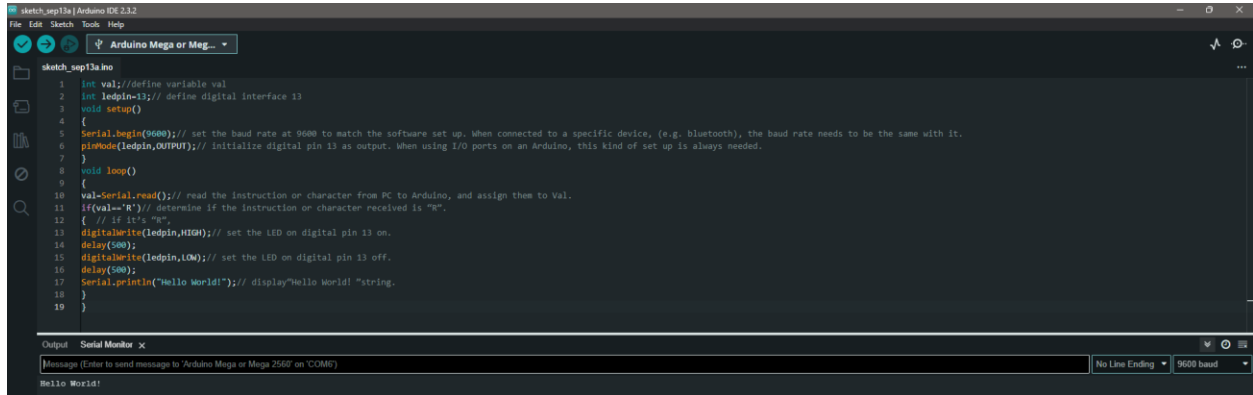
CpE 4010: Sensors, Actuators and Integration

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From procedure 7:

Insert your screenshot of running “Hello World” in Serial Monitor along with the IDE code window here:



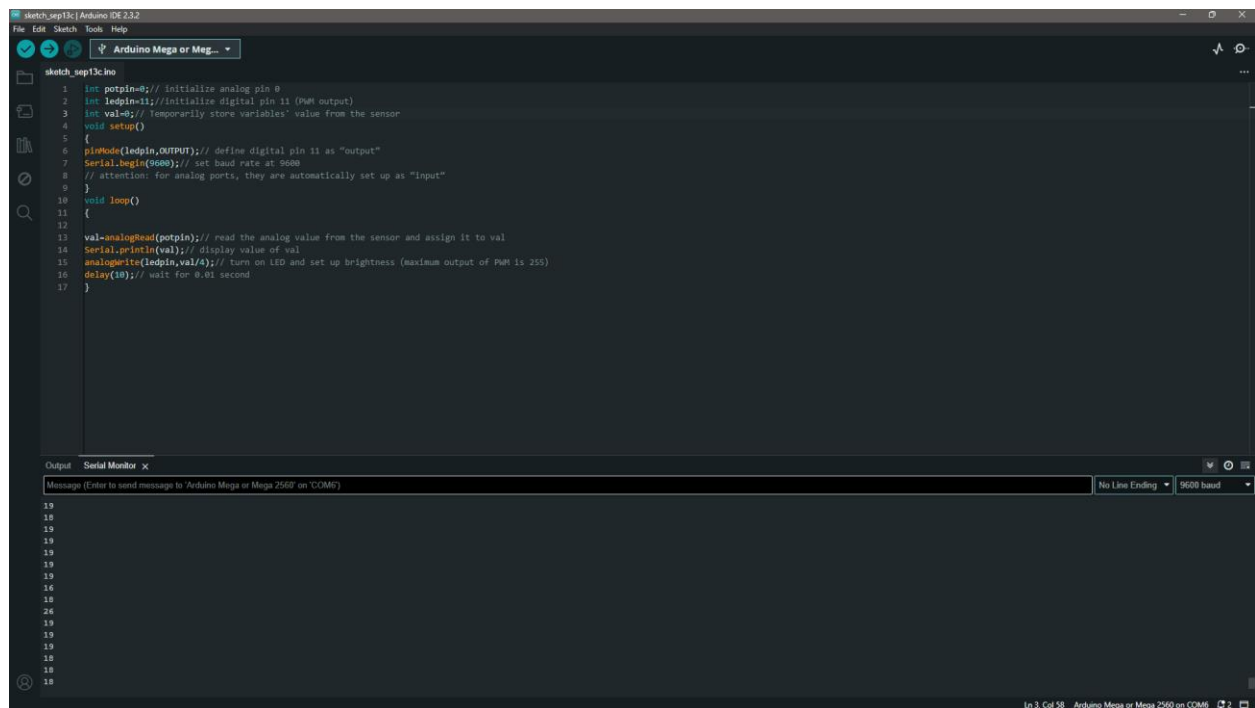
The screenshot displays the Arduino IDE interface. The main window shows a sketch named 'sketch_sep13a.ino' with the following code:

```
1 int val; // define variable val
2 int ledpin=13; // define digital interface 13
3 void setup()
4 {
5   Serial.begin(9600); // set the baud rate at 9600 to match the software set up. When connected to a specific device, (e.g. bluetooth), the baud rate needs to be the same with it.
6   pinMode(ledpin,OUTPUT); // initialize digital pin 13 as output. When using I/O ports on an Arduino, this kind of set up is always needed.
7 }
8 void loop()
9 {
10  val=Serial.read(); // read the instruction or character from PC to Arduino, and assign them to val.
11  if(val=="R") // determine if the instruction or character received is "R".
12  { // if it's "R".
13    digitalWrite(ledpin,HIGH); // set the LED on digital pin 13 on.
14    delay(500);
15    digitalWrite(ledpin,LOW); // set the LED on digital pin 13 off.
16    delay(500);
17    Serial.println("Hello World!"); // display "Hello World!" string.
18  }
19 }
```

Below the code editor, the 'Serial Monitor' window is open, showing the output 'Hello World!'. The 'Message' input field is empty, and the 'No Line Ending' and '9600 baud' settings are visible.

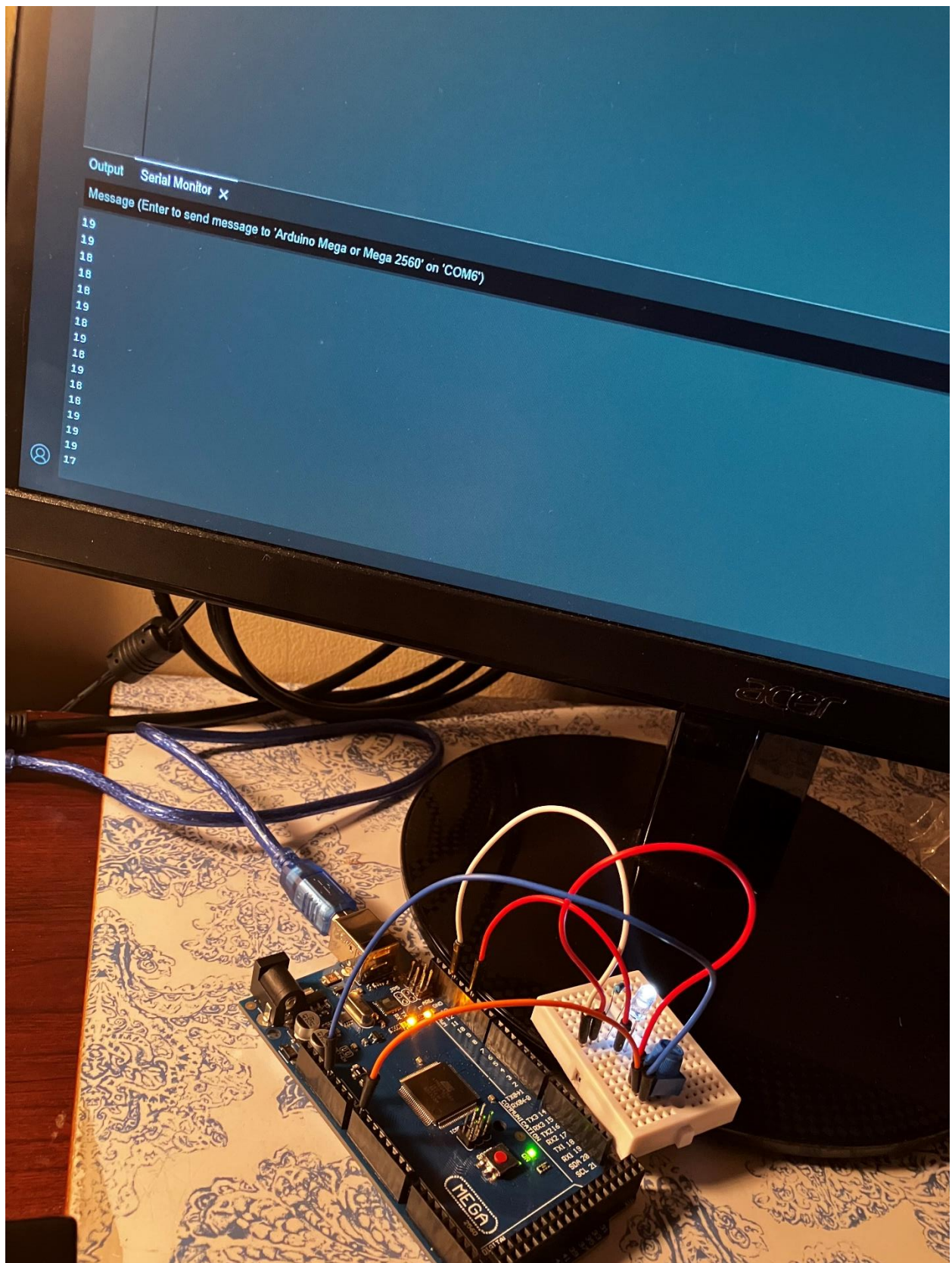
From procedure 9:

Insert your screenshot of Serial Monitor with PWM code here:



Also, from procedure 9:

Insert your picture of your circuit with illuminated LED here:



Conclusions:

Fairly simple lab! It was a good way to ease into using the Arduino without heavily focusing on the coding aspect of the lab. The LED dimming and brightening was a nice touch to the usually simple blinking LED labs from previous labs.