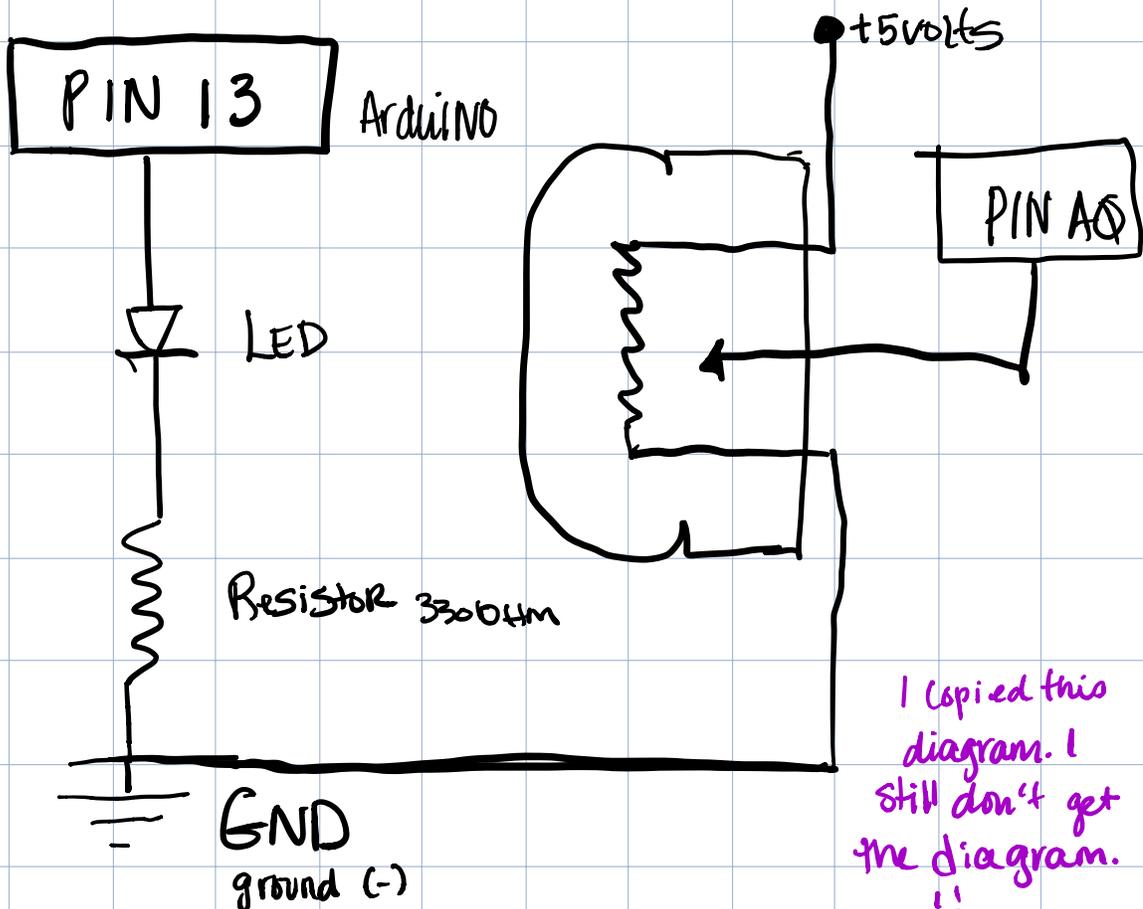


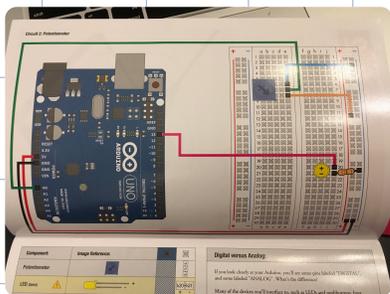
Week 2 (for Real) NOV 8, 2018

This week we are using a potentiometer or variable resistor. Basically, it's a dial. So we're going to use a dial to change the intensity of the LED light.

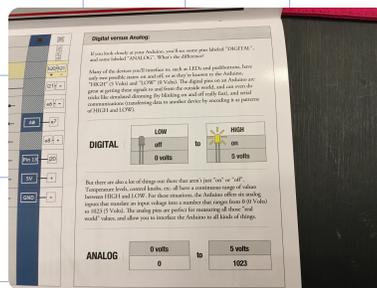


Here's what I think it means. (Before I try it)

- I got a wire in the 5V part so I have to have a ground one.
- Then I use the analog part and I think it goes w/ the dial.
- Then I have the # 13 pin which was just like last time; it's still my output. So I think I'll see that still in the code.
- Then there are 2 wires bringing power to the dial.



I can understand this kind of picture, but I think if I keep drawing the electrical ones, they might start making more sense too.



This is a good explanation. This makes sense to me.

Tomorrow: I Build it.

OK

So I was able to build the circuit. Yay!!

- I thought it would be brighter but its really just faster.

- I used the sketch in files, it worked fine

- when I added the second digital switch(LED) I had to change the code

```
int ledPin = 13
```

had to go so that

I could do it.

Then I added

```
pinmode (13, OUTPUT);  
pinmode (12, OUTPUT);
```

and changed everywhere
that it said ledPin to
the pins 12 + 13

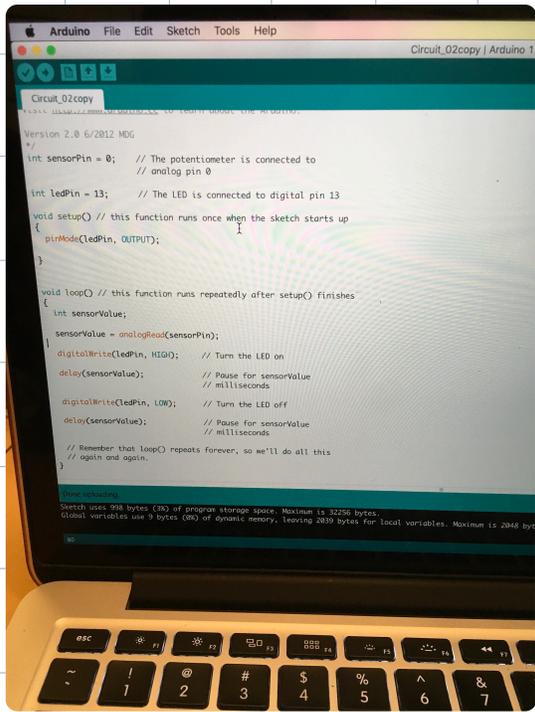
I'm not understanding why
I'd want 2 analog pins
and one digital.

Is that like when you
have 2 switches for

Your one light? Like at
the top + bottom of my stairs?

I did make both
LEDs blink @ different
rates.

- Changed Delay on
Pin 12 to 50 (I played
w/ this number a lot)
- Left Delay for Pin
13 @ sensor value



```
Arduino File Edit Sketch Tools Help
Circuit_02copy | Arduino 1.

Circuit_02copy
Version 2.0 6/2012 MDG
int sensorPin = 0; // The potentiometer is connected to
// analog pin 0

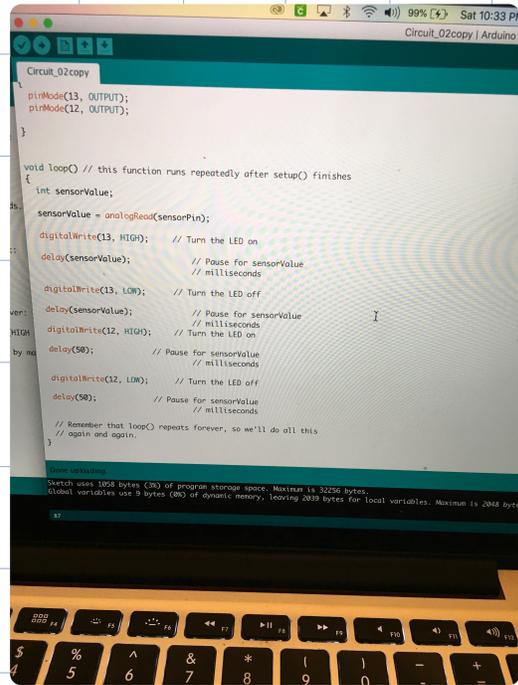
int ledPin = 13; // The LED is connected to digital pin 13

void setup() // this function runs once when the sketch starts up
{
  pinMode(ledPin, OUTPUT);
}

void loop() // this function runs repeatedly after setup() finishes
{
  int sensorValue;
  sensorValue = analogRead(sensorPin);
  digitalWrite(ledPin, HIGH); // Turn the LED on
  delay(sensorValue); // Pause for sensorValue
// milliseconds
  digitalWrite(ledPin, LOW); // Turn the LED off
  delay(sensorValue); // Pause for sensorValue
// milliseconds
// Remember that loop() repeats forever, so we'll do all this
// again and again.
}

Sketch uses 908 bytes (8%) of program storage space. Maximum is 32256 bytes.
Global variables use 9 bytes (8%) of dynamic memory, leaving 2039 bytes for local variables. Maximum is 2048 bytes.
```

This is the code for one digital pin and one analog pin



```
Circuit_02copy
pinMode(13, OUTPUT);
pinMode(12, OUTPUT);

void loop() // this function runs repeatedly after setup() finishes
{
  int sensorValue;
  sensorValue = analogRead(sensorPin);
  digitalWrite(13, HIGH); // Turn the LED on
  delay(sensorValue); // Pause for sensorValue
// milliseconds
  digitalWrite(13, LOW); // Turn the LED off
  delay(sensorValue); // Pause for sensorValue
// milliseconds
  digitalWrite(12, HIGH); // Turn the LED on
  delay(50); // Pause for sensorValue
// milliseconds
  digitalWrite(12, LOW); // Turn the LED off
  delay(50); // Pause for sensorValue
// milliseconds
// Remember that loop() repeats forever, so we'll do all this
// again and again.
}

Sketch uses 1058 bytes (3%) of program storage space. Maximum is 32256 bytes.
Global variables use 9 bytes (8%) of dynamic memory, leaving 2039 bytes for local variables. Maximum is 2048 bytes.
```

This is the code for 2 digital pins and one analog. Also the pins have different delays