

# Understanding Variables

In code you can have several types of variables.

Float (a number with a decimal)	ex. float pi = 3.14
String (A set of letters)	ex. String name="Lozada"
Integer(a whole number)	ex. Int time=35

Assignment:

Create a circuit using an arduino that has RED, GREEN, and BLUE LED. Each will be blinking at different speeds. (Your code must include the use of variables.)

Watch the video for extra review help:

<https://www.youtube.com/watch?v=nPOKOi1jIK0&list=PLGs0VKk2DiYw-L-RibttcvK-WBZm8WLEP&index=4>

Level 1: Red LED is blinking

Level 2: Red LED is blinking 3 times fast than 3 times slow using variables

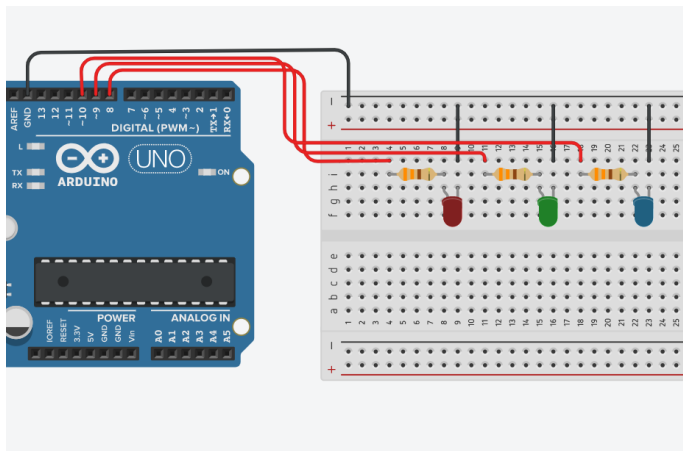
Level 3: Three LED are blinking

Level 4: Three LED are blinking using variables

- i) Start with red 10 times fast (I must be able to count, so do not make it too fast)
- ii) Followed by green 15 times normal (I will let you decide what normal means.)
- ii) Followed by Blue 5 slow

Place screenshots below of your:

1) Arduino circuit



2) the code containing the variables used.

```
int LEDred = 8;  
int LEDgreen = 9;  
int LEDblue = 10;  
int delayRed = 300;  
int delayGreen = 750;  
int delayBlue = 1200;
```

3) the first 10 lines of code in the **void loop()**

```
void loop() {  
    for (int i=0; i<10; i++) {  
        digitalWrite(LEDred, HIGH);  
        delay(delayRed);  
        digitalWrite(LEDred, LOW);  
        delay(delayRed);  
    }  
    for (int i=0; i<15; i++) {  
        digitalWrite(LEDgreen, HIGH);  
        delay(delayGreen);  
        digitalWrite(LEDgreen, LOW);  
        delay(delayGreen);  
    }  
}
```

**Bonus: +1 Attach a short video of your circuit in action. You can not add video to this document but you can submit additional files when you turn in the assignment.**