KOSI NWABUEZE

PHYS S-12:
INTRODUCTION TO
DIGITAL FABRICATION

JUN 25 - INTRODUCTION & DOCUMENTATION
JUN 27 - TOOLS, PROCEDURES, & ELECTRONICS
JUL 02 - 2D DESIGN & CUTTING
JUL 09 - RAPID PROTOTYPING
JUL 11 - PROGRAMMABLE ELECTRONICS
JUL 16 - 3D DESIGN & PRINTING
JUL 18 - ELECTRONIC INPUT DEVICES
JUL 23 - CNC MILLING
JUL 25 - ELECTRONIC OUTPUT DEVICES
JUL 30 - MOLDING & CASTING
AUG 01 - COMPUTER PROGRAMMING
AUG 06 - FINAL PROJECT

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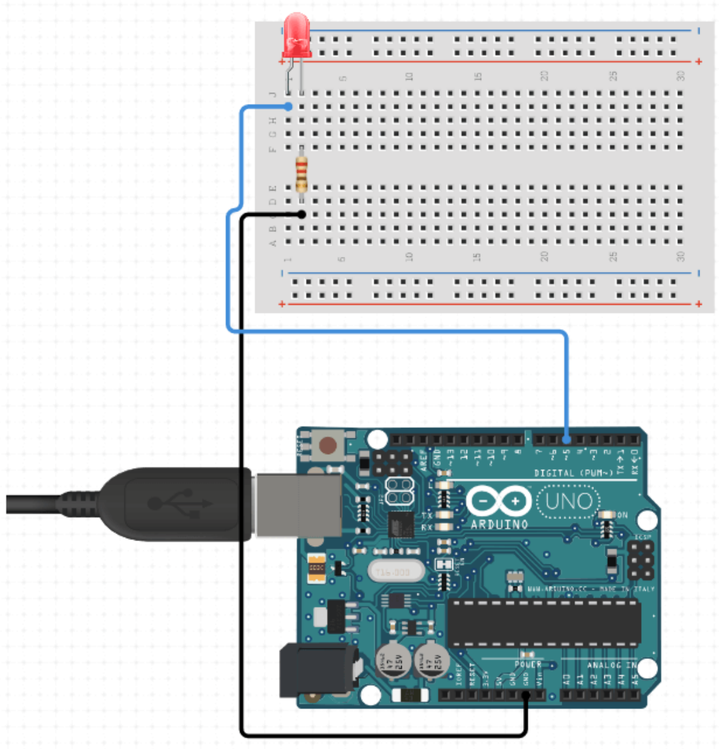
PHYS S-12: INTRODUCTION TO DIGITAL FABRICATION

JUN 25 - INTRODUCTION & DOCUMENTATION

2019-06-26 (LAB SECTION)

USING THE UNO

As a warmup exercise, I first used an ARDUINO UNO REV.3 board as a simple power source to light up a light-emitting diode by connecting the 5V pin in series with a red LED, then I connected the LED in series with resistors of different values (such as 1k or 100Ω).

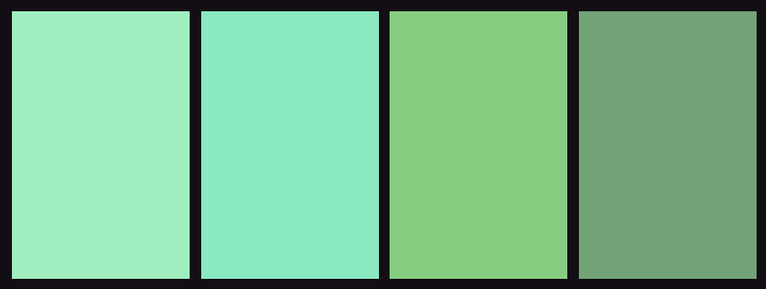


BLINK PROGRAM

Then, as another exercise I rewired the circuit so that the D8 pin was connected instead to the LED and ran a slightly modified version of ARDUINO.CC's blink code.

```
/*
  Blink

  Turns an LED on for one second, then off for one second, repeatedly.

  Most Arduinos have an on-board LED you can control. On the UNO, MEGA a
  it is attached to digital pin 13, on MKR1000 on pin 6. LED_BUILTIN is
  the correct LED pin independent of which board is used.
  If you want to know what pin the on-board LED is connected to on your
  model, check the Technical Specs of your board at:
  https://www.arduino.cc/en/Main/Products

  modified 8 May 2014
  by Scott Fitzgerald
  modified 2 Sep 2016
  by Arturo Guadalupi
  modified 8 Sep 2016
  by Colby Newman
  modified 1 July 2019
  by Kosi Nwabueze

  This example code is in the public domain.

  http://www.arduino.cc/en/Tutorial/Blink
*/

#define D8 8
#define LED D8

// the setup function runs once when you press reset or power the board
void setup() {
  // initialize digital pin LED as an output.
  pinMode(LED, OUTPUT);
}

// the loop function runs over and over again forever
void loop() {
  digitalWrite(LED, HIGH);   // turn the LED on (HIGH is the voltage le
  delay(1000);               // wait for a second
  digitalWrite(LED, LOW);    // turn the LED off by making the voltage
  delay(1000);               // wait for a second
}
```

HEADER 1
HEADER 2
HEADER 3
HEADER 4



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