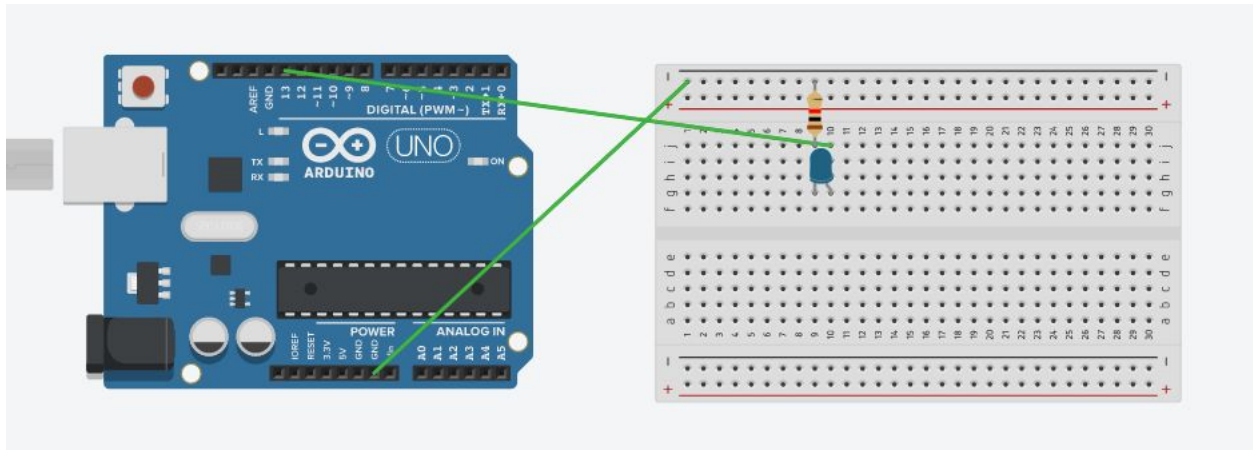


COMP 1045 LAB 1

Circuit diagram: Connect a blue LED on a bread board. Connect the anode side to port 13 on the arduino and the Cathode to the ground.



Source code: Use this code to test the above circuit.

```
int blueLED = 13;
void setup()
{
  pinMode(blueLED, OUTPUT);
}

void loop()
{
  digitalWrite(blueLED, HIGH);
  delay(1000); // Wait for 1000 millisecond(s)
  digitalWrite(blueLED, LOW);
  delay(1000); // Wait for 1000 millisecond(s)
}
```

Level 1: Modify the program to make the LED flash slow three times (1000 mS delay), then quickly three times. (100 mS delay)

Level 2: Modify the program to flash your initials using Morse code (See chart below). A “dot” would have the LED on for 100 mS and for a dash the LED would be on for 1000 mS

Level 3: Write a program that alternates between the blue LED1 and red LED2, to simulate an emergency vehicle.

Morse code:

International Morse Code

1. The length of a dot is one unit.
2. A dash is three units.
3. The space between parts of the same letter is one unit.
4. The space between letters is three units.
5. The space between words is seven units.

A • —
B — • • •
C — • — •
D — • •
E •
F • • — •
G — — •
H • • • •
I • •
J • — — —
K — • —
L • — • •
M — —
N — •
O — — —
P • — — •
Q — — • —
R • — •
S • • •
T —

U • • —
V • • • —
W • — —
X — • • —
Y — • — —
Z — — • •

1 • — — — —
2 • • — — —
3 • • • — —
4 • • • • —
5 • • • • •
6 — • • • •
7 — — • • •
8 — — — • •
9 — — — — •
0 — — — — —