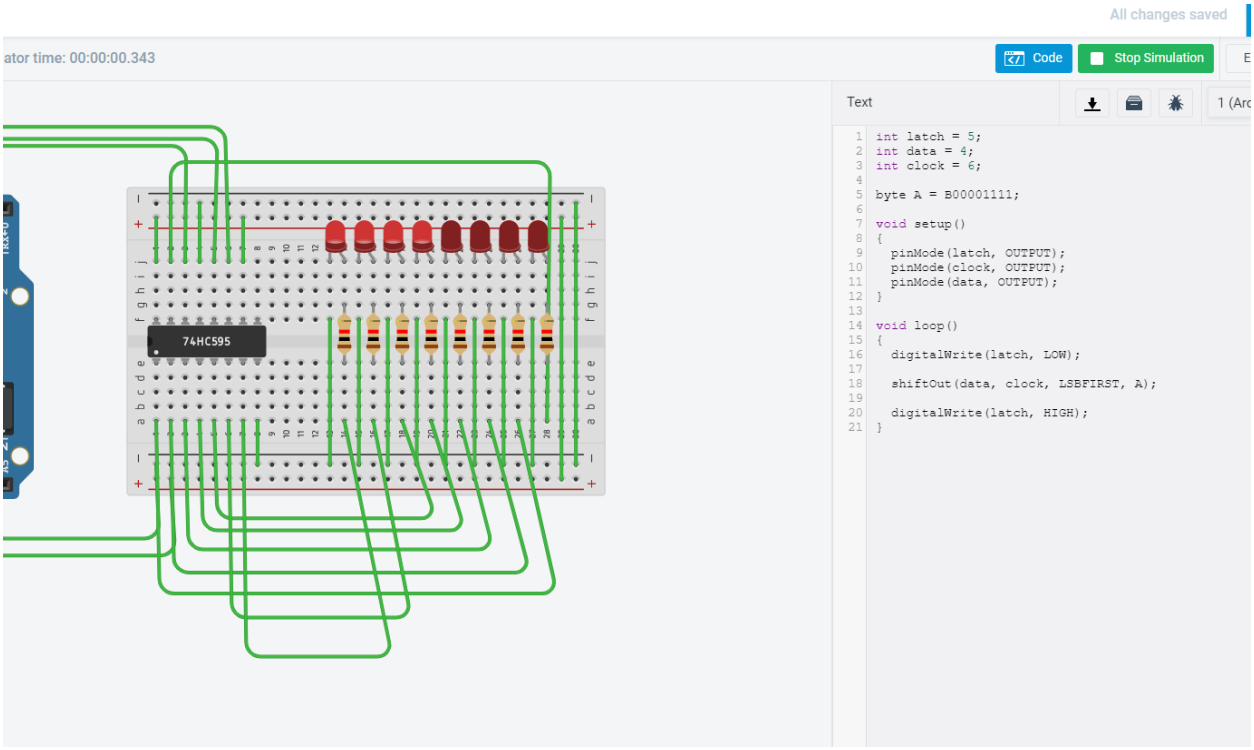
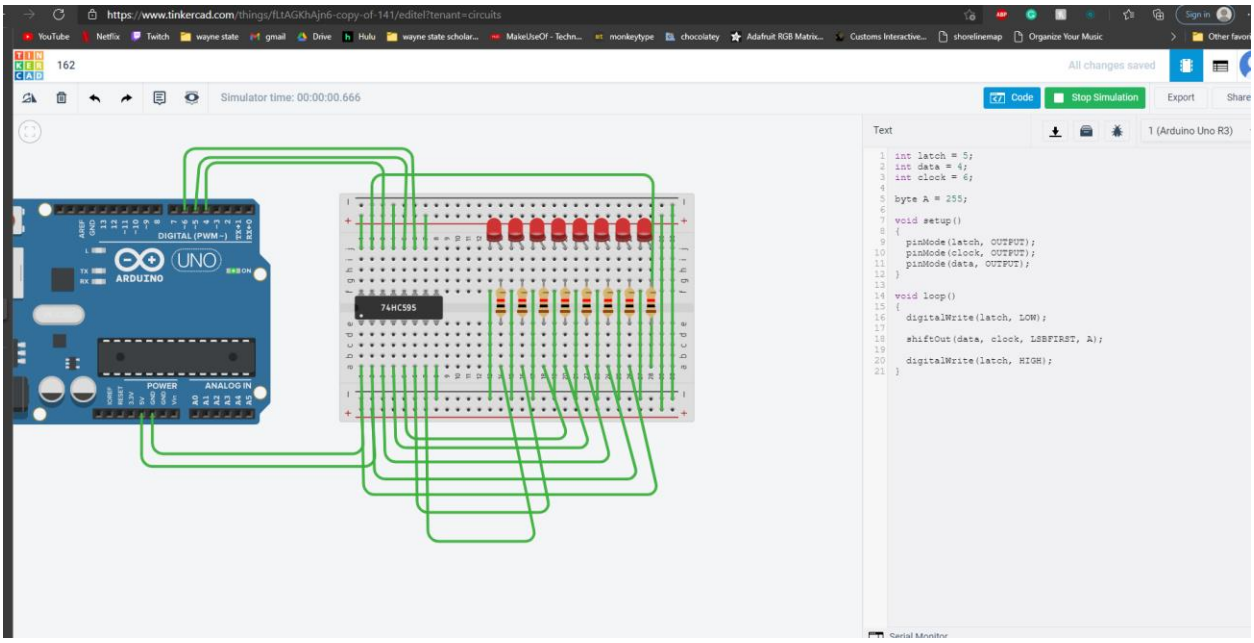
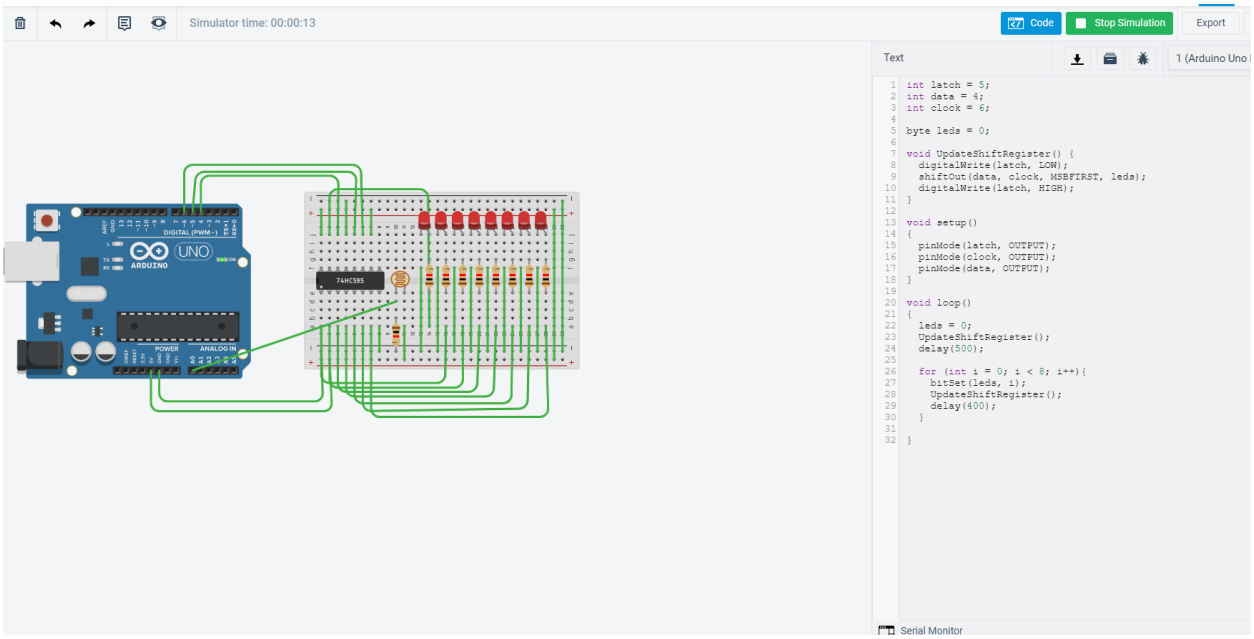
Exercise 1A rory lange



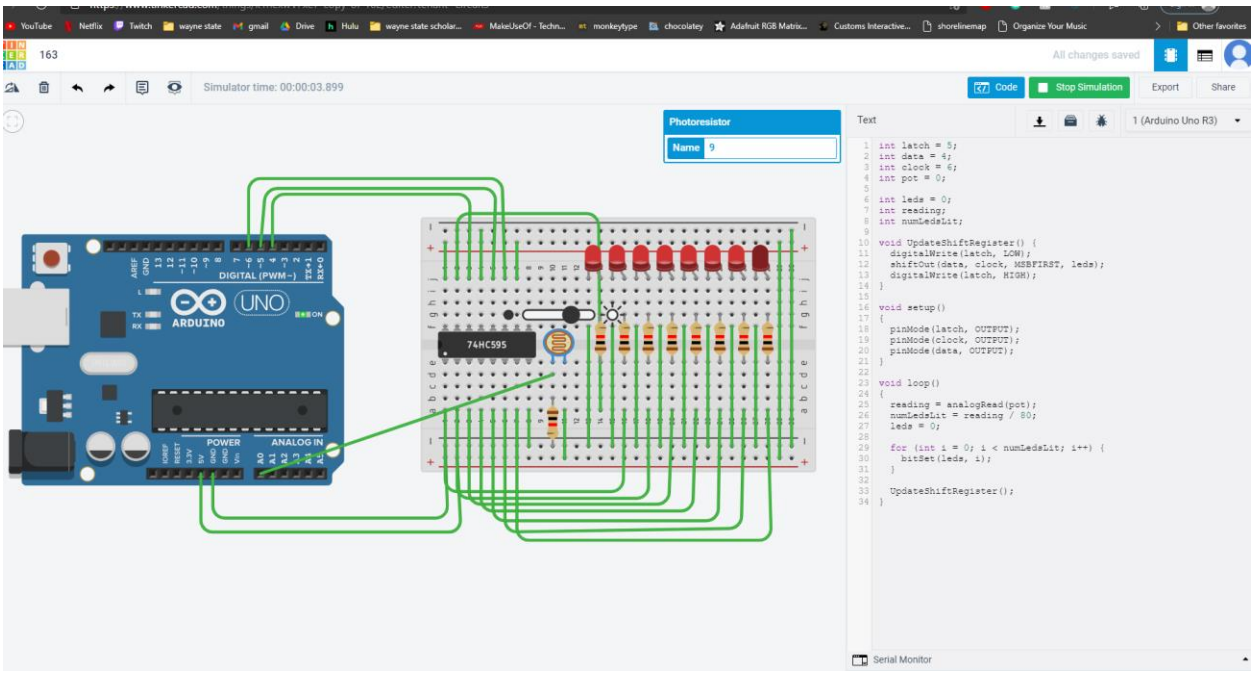
Exercise 1B



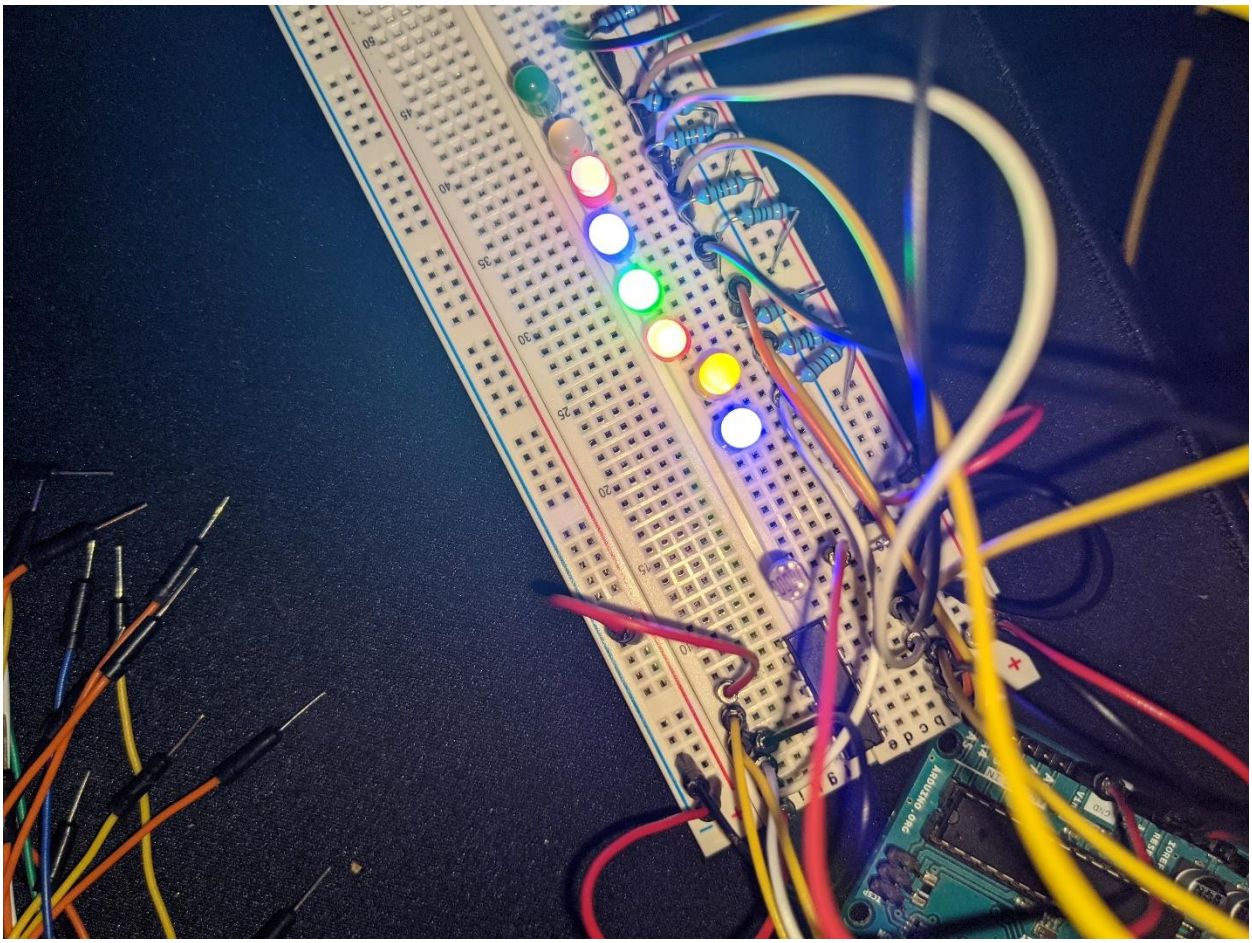
Exercise 2



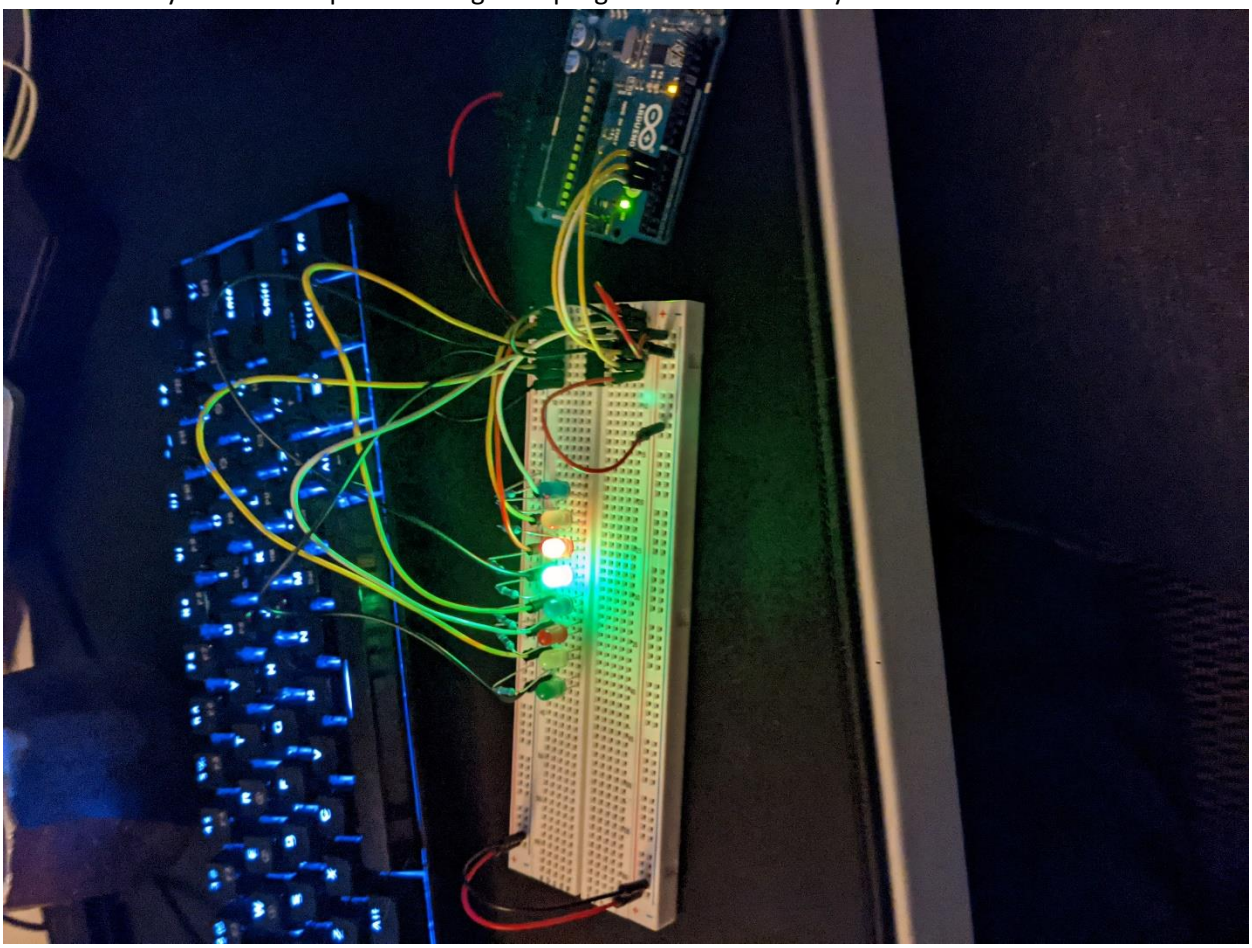
Exercise 3



Used camera flash for irl image



Exercise 4 only two are lit up in the image but program works correctly irl

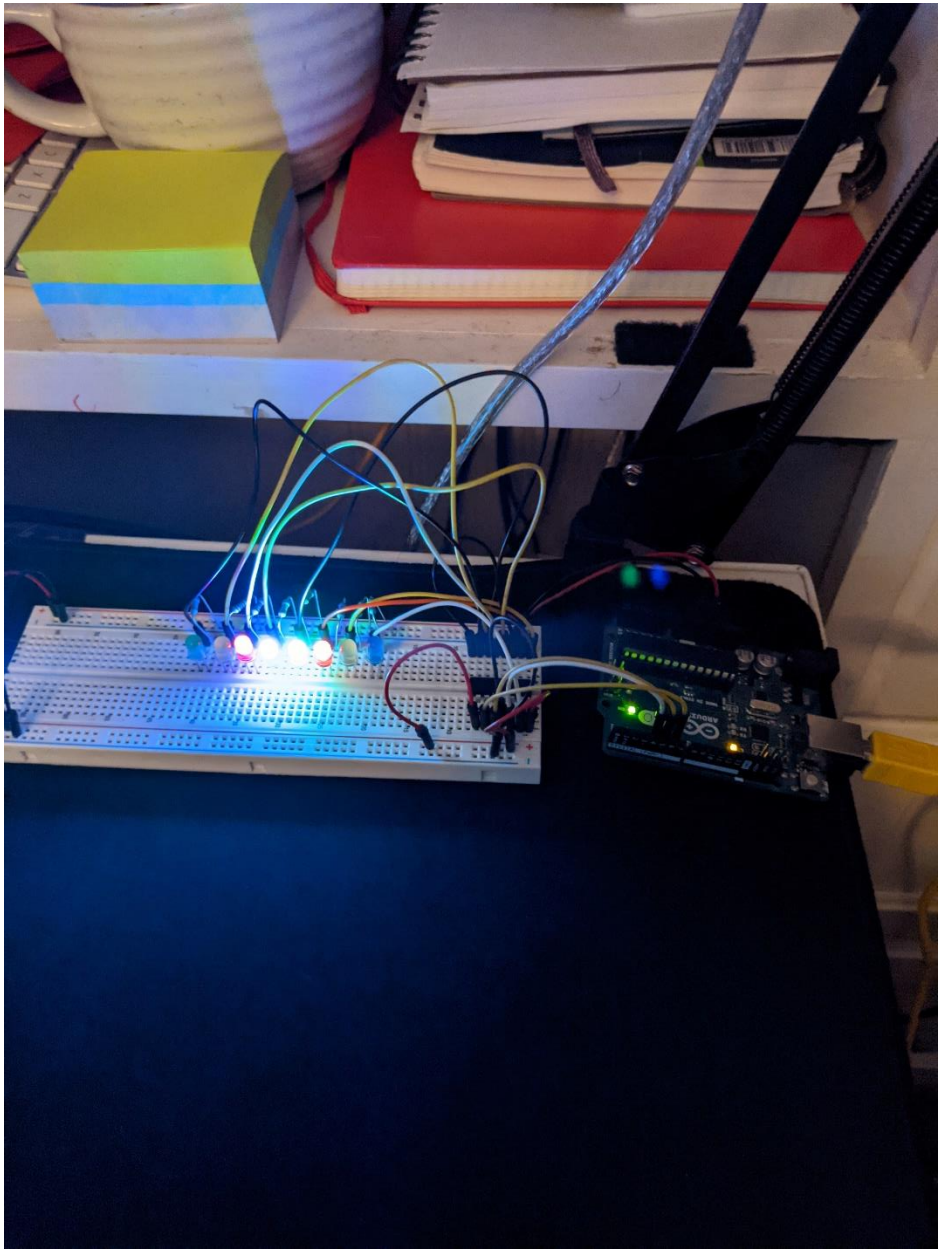


Arduino Uno at COM3

sketch_mar14a.ino

```
int clock = 6;
int latch = 5;
int data = 4;
int seq[] = {1, 2, 4, 8, 16, 32, 64, 128, 64, 32, 16, 8, 4, 2};

void setup() {
  // put your setup code here, to run once:
  for (int i = 4; i <= 6; i++)
    pinMode(i, OUTPUT);

}

void loop() {
  // put your main code here, to run repeatedly:
  for (int i = 0; i < 14; i++) {
    digitalWrite(latch, LOW);
    shiftOut(data, clock, MSBFIRST, seq[i]);
    digitalWrite(latch, HIGH);
    delay(75);
  }

}

```

Exercise 4B



sketch_mar14a.ino

```
int clock = 6;
int latch = 5;
int data = 4;
int seq[] = {129, 66, 36, 24, 36, 66};

void setup() {
  // put your setup code here, to run once:
  for (int i = 4; i <= 6; i++)
    pinMode(i, OUTPUT);

}

void loop() {
  // put your main code here, to run repeatedly:
  for (int i = 0; i < 6; i++) {
    digitalWrite(latch, LOW);
    shiftOut(data, clock, MSBFIRST, seq[i]);
    digitalWrite(latch, HIGH);
    delay(75);
  }

}

```

Exercise 5

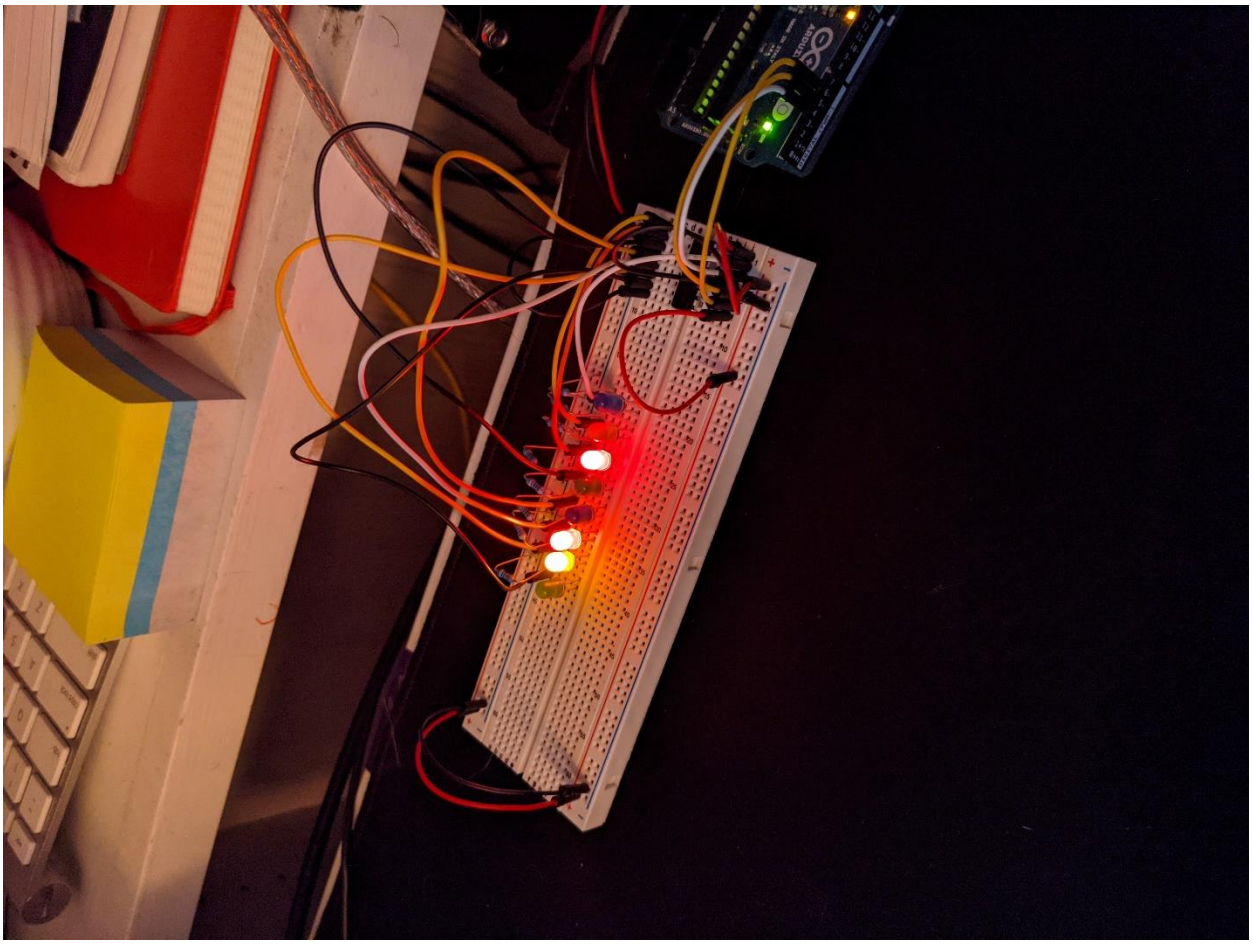
sketch_mar14a | Arduino IDE 2.0.0-beta.3

File Edit Sketch Tools Help

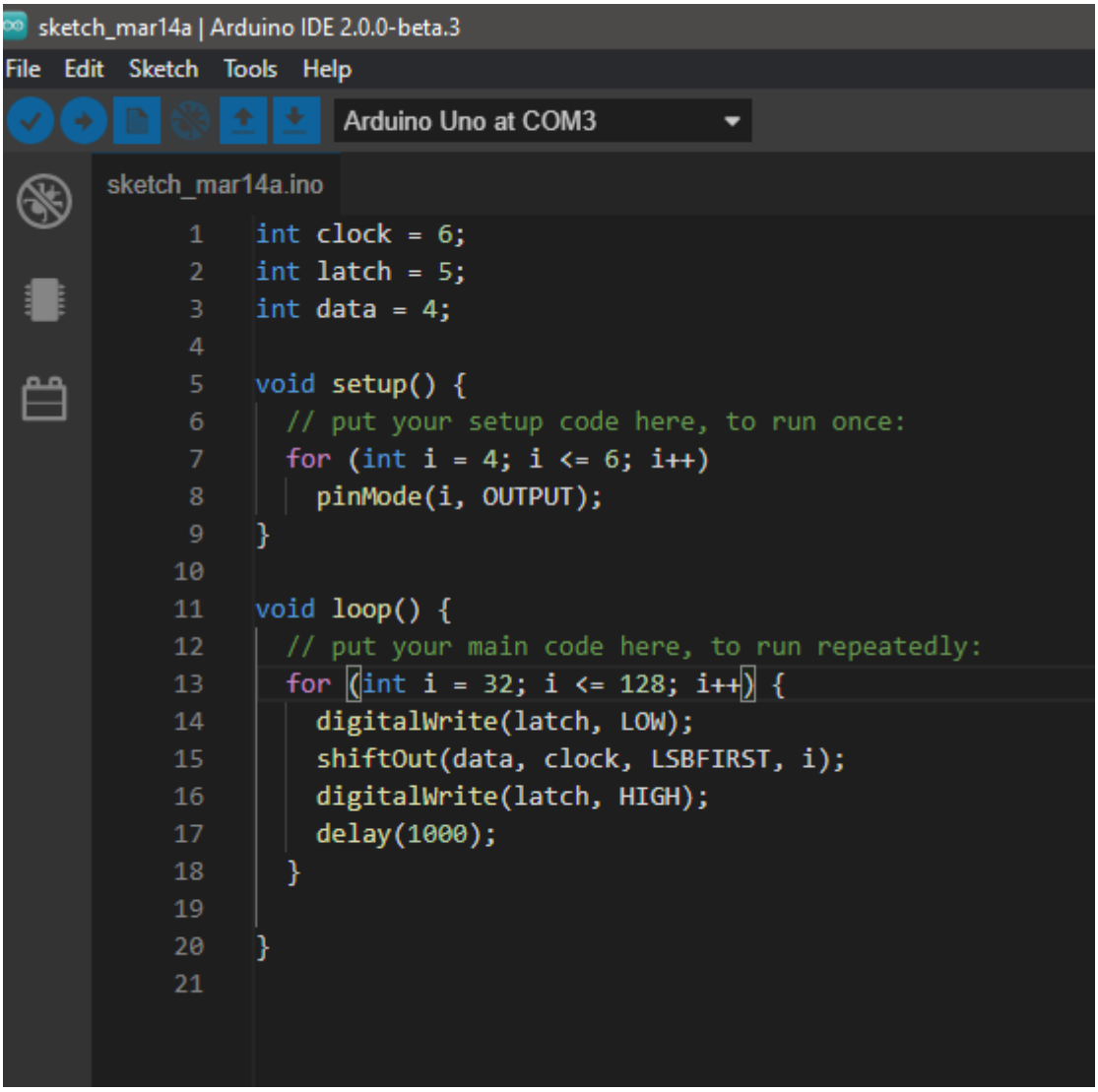
Arduino Uno at COM3

sketch_mar14a.ino

```
int clock = 6;
int latch = 5;
int data = 4;

void setup() {
  // put your setup code here, to run once:
  for (int i = 4; i <= 6; i++)
    pinMode(i, OUTPUT);
}

void loop() {
  // put your main code here, to run repeatedly:
  for (int i = 0; i <= 256; i++) {
    digitalWrite(latch, LOW);
    shiftOut(data, clock, LSBFIRST, i);
    digitalWrite(latch, HIGH);
    delay(1000);
  }

}

```



Exercise 5B


sketch_mar14a | Arduino IDE 2.0.0-beta.3
File Edit Sketch Tools Help
Arduino Uno at COM3
sketch_mar14a.ino
1 int clock = 6;
2 int latch = 5;
3 int data = 4;
4
5 void setup() {
6 // put your setup code here, to run once:
7 for (int i = 4; i <= 6; i++)
8 pinMode(i, OUTPUT);
9 }
10
11 void loop() {
12 // put your main code here, to run repeatedly:
13 for (int i = 32; i <= 128; i++) {
14 digitalWrite(latch, LOW);
15 shiftOut(data, clock, LSBFIRST, i);
16 digitalWrite(latch, HIGH);
17 delay(1000);
18 }
19
20 }
21