

Assignment-4

Ultrasonic Sensor detection:

Program:

```
#define ECHO_PIN 2

#define TRIG_PIN 3

void setup() {

  Serial.begin(115200);

  pinMode(LED_BUILTIN, OUTPUT);

  pinMode(TRIG_PIN, OUTPUT);

  pinMode(ECHO_PIN, INPUT);

}

float readDistanceCM() {

  digitalWrite(TRIG_PIN, LOW);

  delayMicroseconds(2);

  digitalWrite(TRIG_PIN, HIGH);

  delayMicroseconds(10);

  digitalWrite(TRIG_PIN, LOW);

  int duration = pulseIn(ECHO_PIN, HIGH);

  return duration * 0.034 / 2;

}

void loop() {

  float dist = readDistanceCM();

  bool isNearby = dist < 100;

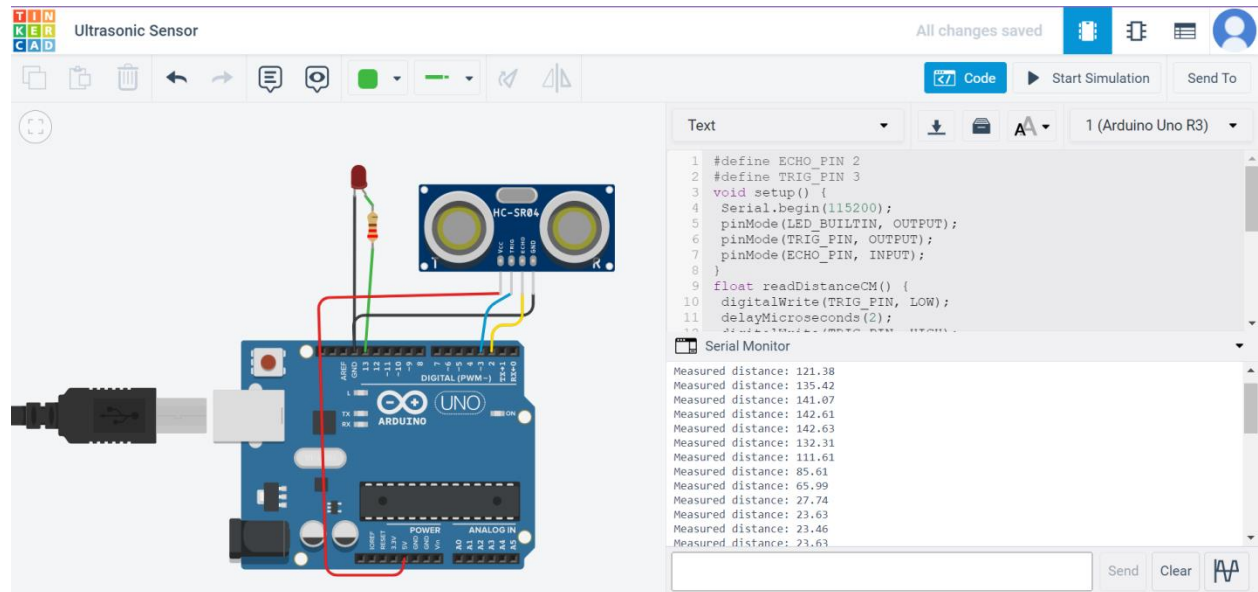
  digitalWrite(LED_BUILTIN, isNearby);

  Serial.print("Measured distance: ");
```

```
Serial.println(readDistanceCM());
```

```
delay(100);
```

```
}
```



https://www.tinkercad.com/things/1enmr2gttek?sharecode=seRi_pdQ0prs4IHeeKMqFJ7rKOJ-KciZXGs44Or1UCo