```
// Connect the two ground pins to ground pin of Arduino
// board

// connect the US-100 trigger pin
// to pin 6 of Arduino board
const int trigger = 6;
// connect the US-100 echo pin
// to pin 7 of Arduino board
const int echo = 7;
float distance;

int led1 = 8;
int led2 = 9;
int led3 = 10;
int led4 = 11;
int led5 = 12;

void setup() {
// initiates serial communication between
// Arduino board and Arduino Software
// Serial monitor
Serial.begin(9600);
// Comment out if you don't need
// this serial.begin ek ek.
pinMode(trigger,OUTPUT);
pinMode(echo,INPUT);
// declare LEDS as OUTPUT
pinMode(led1,OUTPUT);
pinMode(led2,OUTPUT);
pinMode(led3,OUTPUT);
pinMode(led4,OUTPUT);
pinMode(led5,OUTPUT);
}

void loop () {
// Set the trigger
digitalWrite(trigger, LOW);
delayMicroseconds(5);

// Start measurement
digitalWrite(trigger, HIGH);
delayMicroseconds(10);
digitalWrite(trigger, LOW);
```

```
// Acquire data and convert it to meters
distance = pulseIn(echo,HIGH); // data acquisition
distance = distance*0.0001657; // data converstion

// Sent result to Serial monitor
// Again, comment this out if you don't feel the
// need or will never use it.
Serial.println(distance);
delay(100); // one second delay to
// prevent receiving massive amount of data.

// US-100 Ultrasonic Distance Sensor application example

if (distance >= 0 && distance <=1){
digitalWrite(led1, HIGH);
digitalWrite(led2, HIGH);
digitalWrite(led3, HIGH);
digitalWrite(led4, HIGH);
digitalWrite(led5, HIGH);
delay(10);
}
else if (distance >= 1.1 && distance <= 1.5){
digitalWrite(led1, LOW);
digitalWrite(led2, HIGH);
digitalWrite(led3, HIGH);
digitalWrite(led4, HIGH);
digitalWrite(led5, HIGH);
delay(10);
}
else if (distance >= 1.51 && distance <= 2){
digitalWrite(led1, LOW);
digitalWrite(led2, LOW);
digitalWrite(led3, HIGH);
digitalWrite(led4, HIGH);
digitalWrite(led5, HIGH);
delay(10);
}
else if (distance >= 2.1 && distance <= 2.5){
digitalWrite(led1, LOW);
digitalWrite(led2, LOW);
digitalWrite(led3, LOW);
digitalWrite(led4, HIGH);
```

```
digitalWrite(led5, HIGH);
delay(10);
}
else if (distance >= 2.51 && distance <= 3){
digitalWrite(led1, LOW);
digitalWrite(led2, LOW);
digitalWrite(led3, LOW);
digitalWrite(led4, LOW);
digitalWrite(led5, HIGH);
delay(10);
}
else if (distance >= 3.1 && distance <= 4){
digitalWrite(led1, LOW);
digitalWrite(led2, LOW);
digitalWrite(led3, LOW);
digitalWrite(led4, LOW);
digitalWrite(led5, LOW);
delay(10);
}
// If none of the conditions abover are met
// then turn all the leds off.
// Turning off all the leds plus the 100 milliseconds
// delay prevents flickering.
else {
digitalWrite(led1, LOW);
digitalWrite(led2, LOW);
digitalWrite(led3, LOW);
digitalWrite(led4, LOW);
digitalWrite(led5, LOW);
delay(10);
}

}
```