



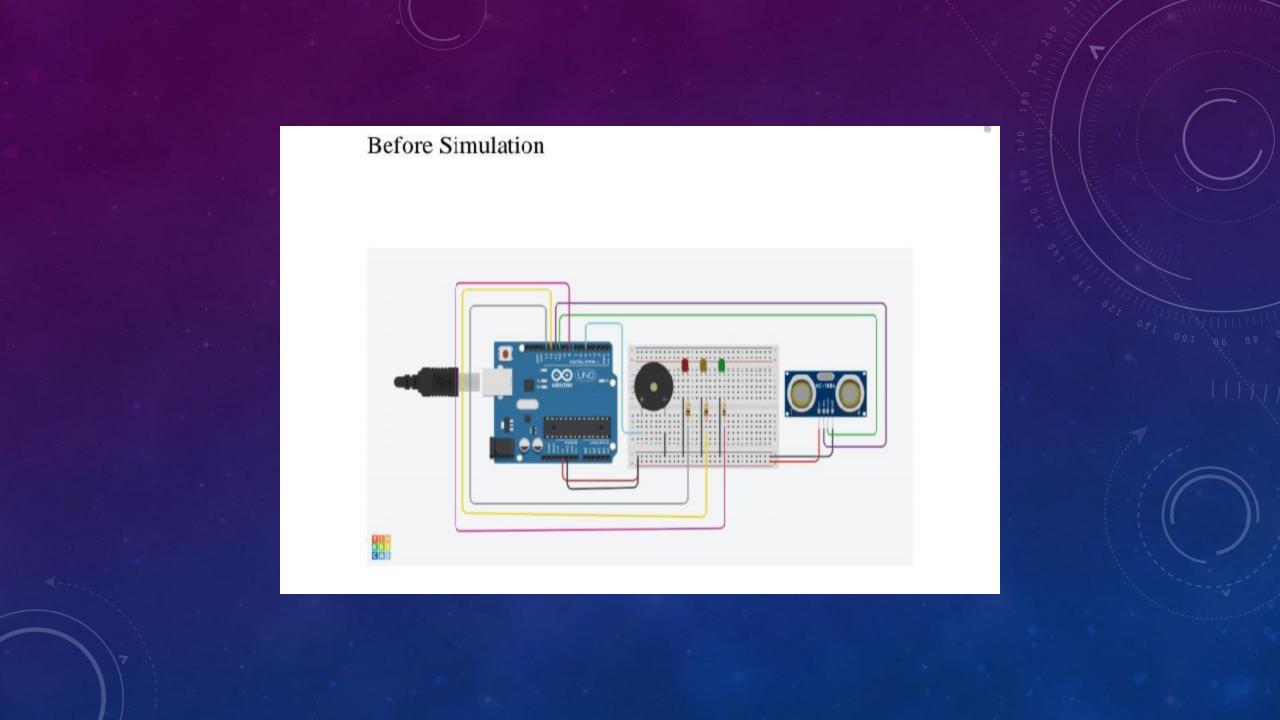
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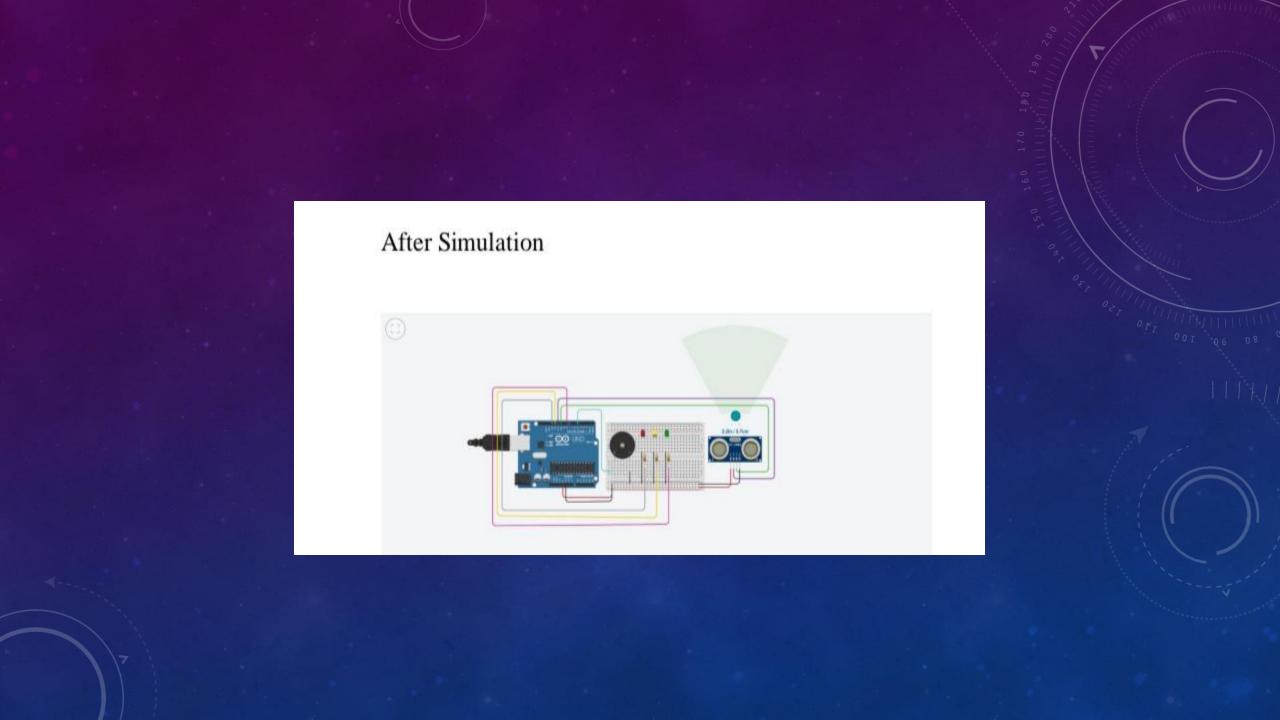
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## Code:

```
1 // C++ code
 3 int distancia = 0;
   int i = 0;
 6
   long readUltrasonicDistance(int triggerPin, int echoPin)
     pinMode(triggerPin, OUTPUT); // Clear the trigger
 9
10
     digitalWrite(triggerPin, LOW);
11
     delayMicroseconds(2);
12
     // Sets the trigger pin to HIGH state for 10 microseconds
1.3
     digitalWrite(triggerPin, HIGH);
1.4
     delayMicroseconds(10);
1.5
     digitalWrite(triggerPin, LOW);
1.6
     pinMode (echoPin, INPUT);
17
     // Reads the echo pin, and returns the sound wave travel time i
18
     return pulseIn(echoPin, HIGH);
19 )
21 void setup()
22 {
     pinMode (8, OUTPUT);
24
     pinMode (12, OUTPUT);
25
     pinMode (13, OUTPUT);
     pinMode (5, OUTPUT);
```

```
26 pinMode(5, OUTPUT);
27 )
29 void loop()
30 {
     distancia = 0.01723 * readUltrasonicDistance(11, 10);
     if (distancia > 10) {
       digitalWrite(8, HIGH);
       digitalWrite(12, LOW);
       digitalWrite(13, LOW);
       digitalWrite(5, LOW);
       delay(200); // Wait for 200 millisecond(s)
       digitalWrite(5, LOW);
       delay(200); // Wait for 200 millisecond(s)
40
      } else {
41
       digitalWrite(8, LOW);
42
       digitalWrite(5, LOW);
43
44
45
     distancia = 0.01723 * readUltrasonicDistance(11, 10);
     if (distancia <= 10) {
46
47
       digitalWrite(8, LOW);
48
       digitalWrite(12, HIGH);
49
       digitalWrite(13, LOW);
       digitalWrite(5, HIGH);
       delay(200); // Wait for 200 millisecond(s)
52 4
      delay(200); // Wait for 200 millisecond(s)
```

```
digitalWrite(5, LOW);
       delay(200); // Wait for 200 millisecond(s)
54
       digitalWrite(12, LOW);
       digitalWrite(5, LOW);
     distancia = 0.01723 * readUltrasonicDistance(11, 10);
     if (distancia <= 5) {
       digitalWrite(8, LOW);
       digitalWrite(12, LOW);
       digitalWrite(13, HIGH);
       digitalWrite(5, HIGH);
       delay(100); // Wait for 100 millisecond(s)
       digitalWrite(5, LOW);
       delay(100); // Wait for 100 millisecond(s)
     ) else (
       digitalWrite(13, LOW);
       digitalWrite(5, LOW);
71 }
```