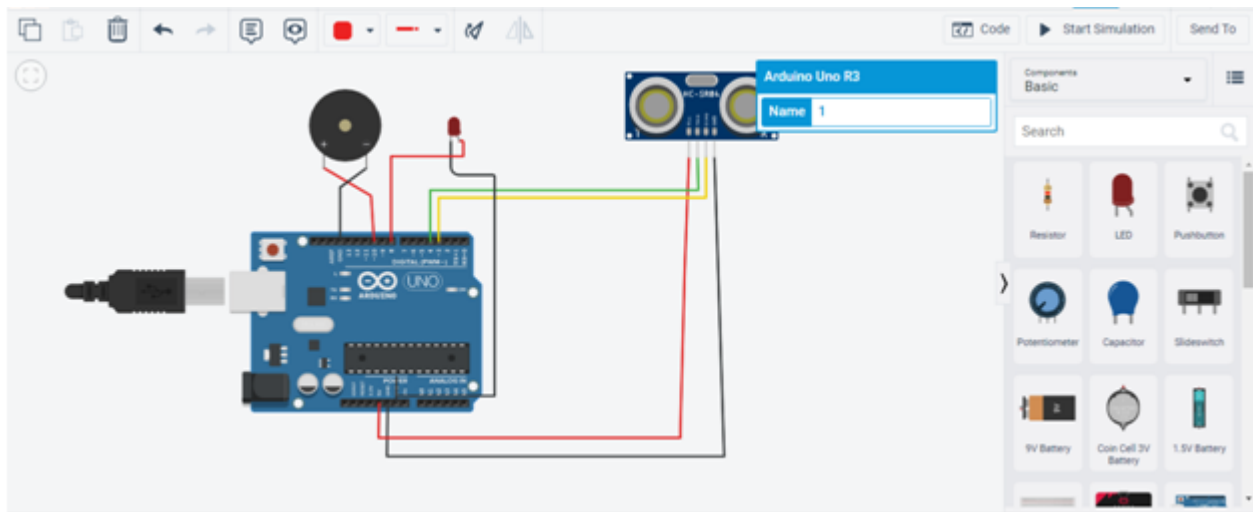


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CIRCUIT DIAGRAM



Code:

```

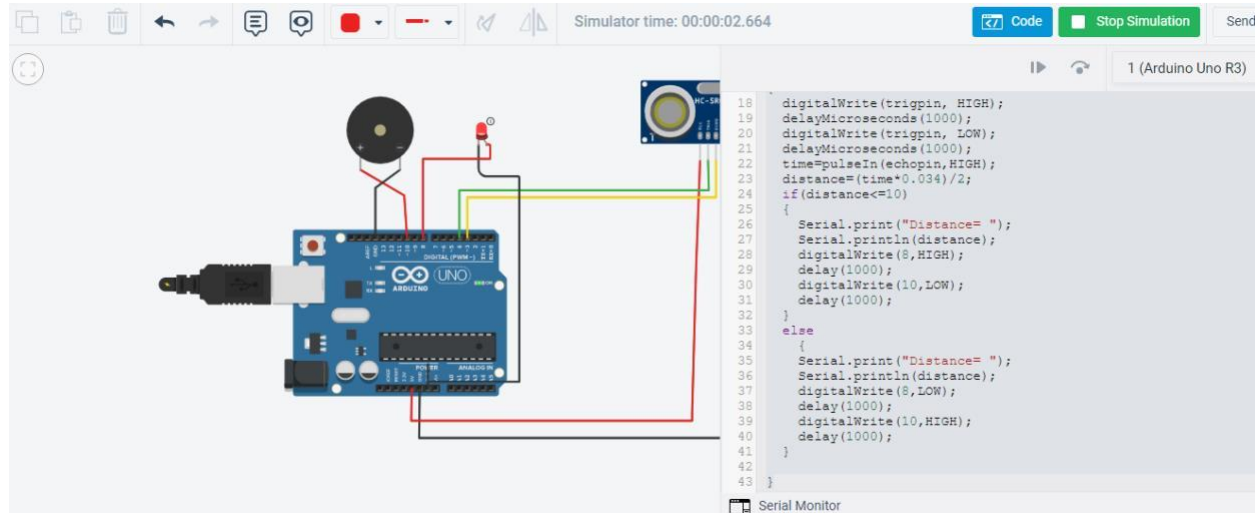
int trigpin=4;
int echopin=3;
int buzzerpin=10;
int time;
int distance;

void setup()
{
  pinMode(8,OUTPUT);
  pinMode(3,INPUT);
  pinMode(4,OUTPUT);
  pinMode(10,OUTPUT);
  Serial.begin(9600);

```

```
void loop()
{
  digitalWrite(trigpin, HIGH);
  delayMicroseconds(1000);
  digitalWrite(trigpin, LOW);
  delayMicroseconds(1000);
  time=pulseIn(echopin,HIGH);
  distance=(time*0.034)/2;
  if(distance<=10)
  {
    Serial.print("Distance= ");
    Serial.println(distance);
    digitalWrite(8,HIGH);
    delay(1000);
    digitalWrite(10,LOW);
    delay(1000);
  }
  else
  {
    Serial.print("Distance= ");
    Serial.println(distance);
    digitalWrite(8,LOW);
    delay(1000);
    digitalWrite(10,HIGH);
    delay(1000);
  }
}
```

OUTPUT



The image shows a screenshot of an Arduino IDE simulation environment. On the left, a circuit diagram is displayed featuring an Arduino Uno R3 board. A black USB Type-C cable is connected to the board's USB port. An HC-SR04 ultrasonic sensor is connected to the board with the following wiring: VCC to 5V, GND to GND, Trig to digital pin 2, and Echo to digital pin 3. A yellow buzzer is connected to the board with VCC to 5V, GND to GND, and a signal wire to digital pin 8. The top status bar indicates 'Simulator time: 00:00:02.664'. On the right, the code editor shows the following C++ code:

```
18 digitalWrite(trigpin, HIGH);
19 delayMicroseconds(1000);
20 digitalWrite(trigpin, LOW);
21 delayMicroseconds(1000);
22 time=pulseIn(echopin,HIGH);
23 distance=(time*0.034)/2;
24 if(distance<=10)
25 {
26   Serial.print("Distance= ");
27   Serial.println(distance);
28   digitalWrite(8,HIGH);
29   delay(1000);
30   digitalWrite(10,LOW);
31   delay(1000);
32 }
33 else
34 {
35   Serial.print("Distance= ");
36   Serial.println(distance);
37   digitalWrite(8,LOW);
38   delay(1000);
39   digitalWrite(10,HIGH);
40   delay(1000);
41 }
42 }
43 }
```

Below the code editor, the 'Serial Monitor' tab is visible, showing no output yet.