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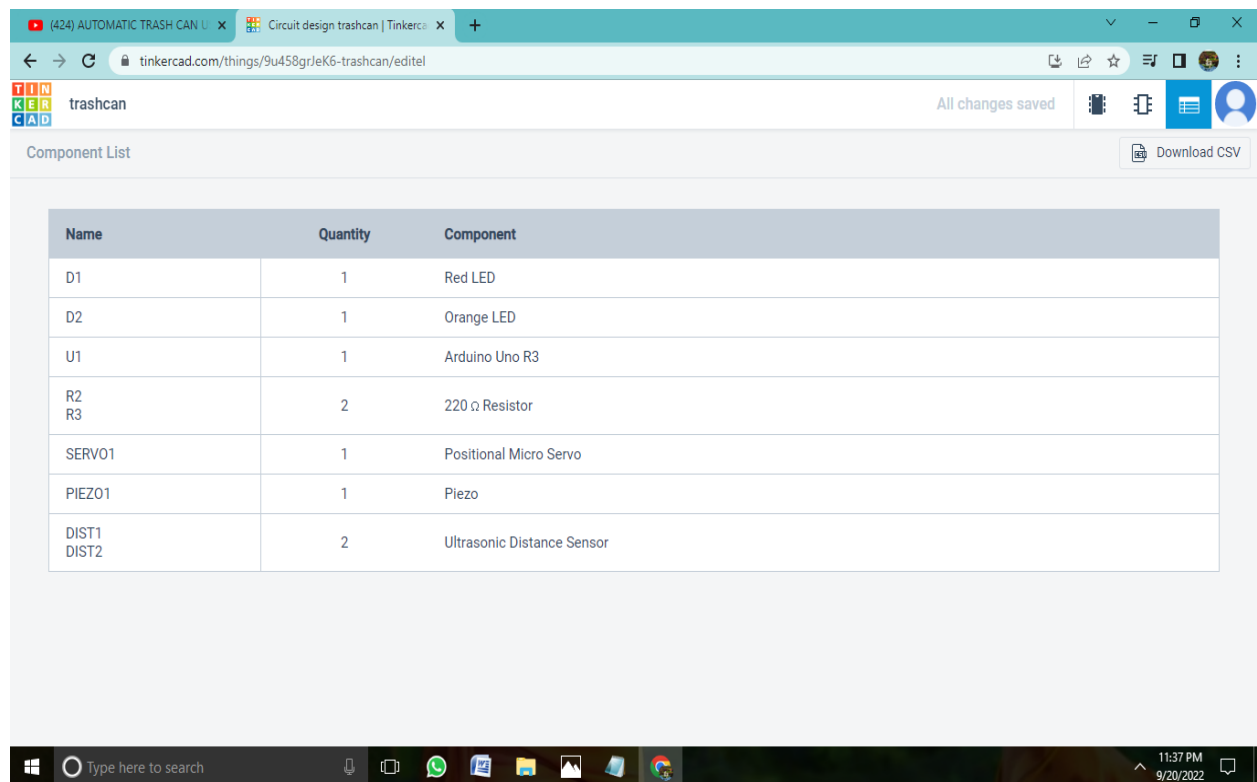
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AUTOMATIC TRASHCAN USING ARDUINO UNO,ULTRASONIC SENSORS AND SERVO MOTOR

COMPONENTS:

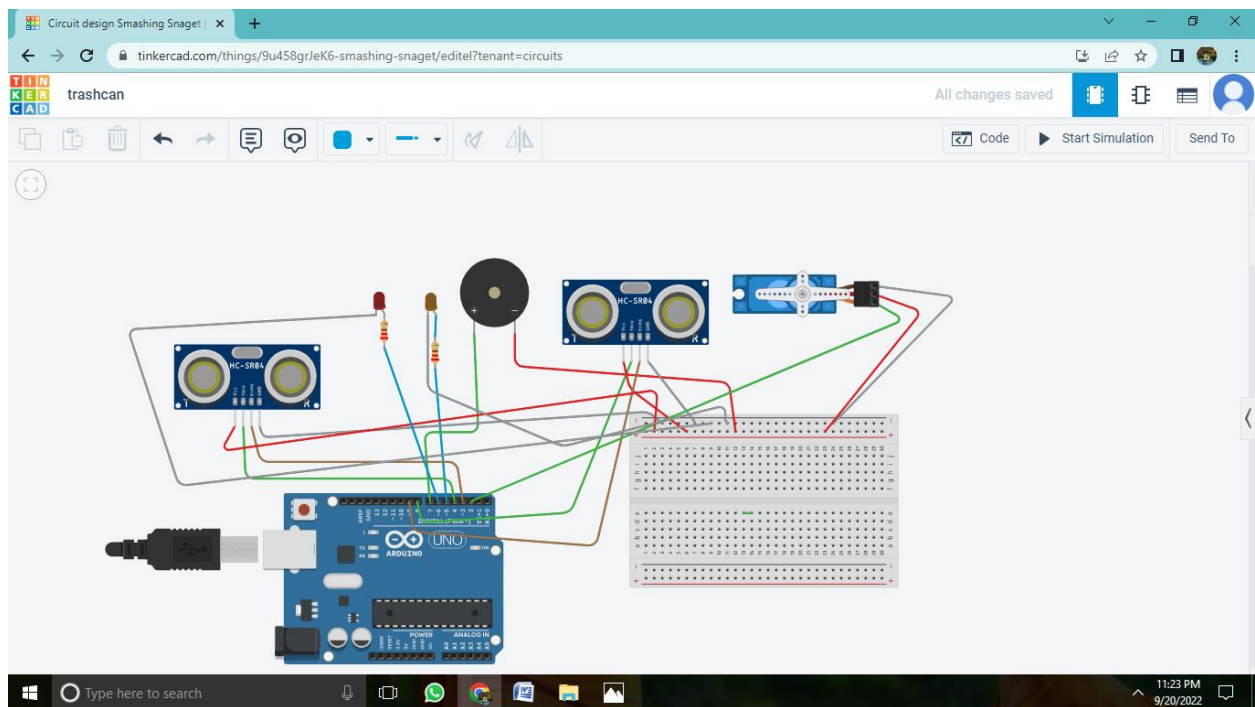


The screenshot shows the Tinkercad web interface. The browser address bar displays 'tinkercad.com/things/9u458gr/eK6-trashcan/edit'. The page title is 'trashcan'. A 'Component List' table is visible, listing the components used in the project. The table has three columns: Name, Quantity, and Component. The components listed are: D1 (Red LED), D2 (Orange LED), U1 (Arduino Uno R3), R2 and R3 (220 Ohm Resistor), SERVO1 (Positional Micro Servo), PIEZO1 (Piezo), and DIST1 and DIST2 (Ultrasonic Distance Sensor).

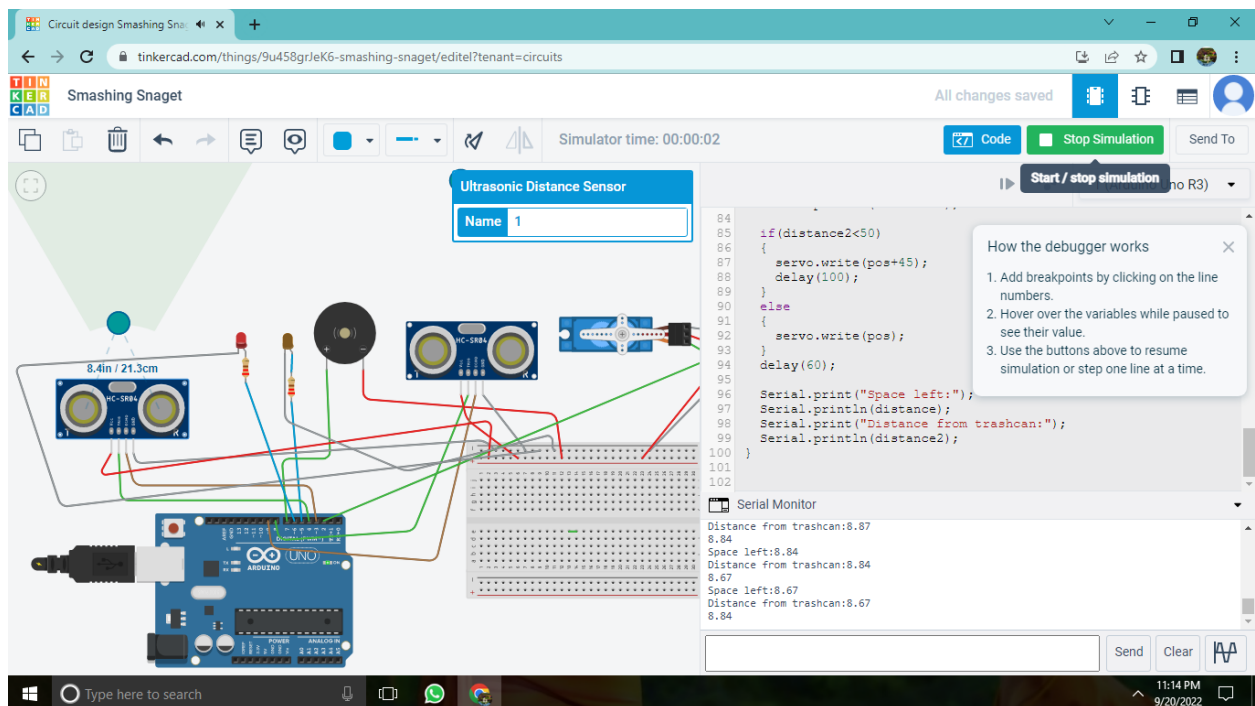
Name	Quantity	Component
D1	1	Red LED
D2	1	Orange LED
U1	1	Arduino Uno R3
R2 R3	2	220 Ω Resistor
SERVO1	1	Positional Micro Servo
PIEZ01	1	Piezo
DIST1 DIST2	2	Ultrasonic Distance Sensor

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DESIGN



OUTPUT



[Type text]

CODE

```
#include <Servo.h>

Servo servo;

int pos = 0;

const int trigPin = 4;

const int echoPin = 3;

int orange = 5;

int red = 6;

const int trigPin2 = 8;

const int echoPin2 = 9;

int buzzer = 7;


long duration;

long duration2;

float distance;

float distance2;


void setup()

{

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);
```

[Type text]

```
pinMode (orange, OUTPUT);
```

```
pinMode(red, OUTPUT);
```

```
pinMode(echoPin2, INPUT);
```

```
pinMode(trigPin2, OUTPUT);
```

```
pinMode (buzzer, INPUT);
```

```
servo.write(pos);
```

```
servo.attach (2);
```

```
}
```

```
void loop()
```

```
{
```

```
Serial.begin(9600);
```

```
digitalWrite(trigPin, LOW);
```

```
delayMicroseconds(2);
```

```
digitalWrite(trigPin, HIGH);
```

```
delayMicroseconds (10);
```

```
digitalWrite(trigPin, LOW);
```

```
duration pulseIn(echoPin, HIGH);
```

```
distance 0.034 (duration/2);
```

```
digitalWrite(red, LOW);
```

```
digitalWrite(orange, LOW);
```

[Type text]

```
if (distance < 10) {  
  digitalWrite(red, HIGH);  
  digitalWrite(orange, LOW);  
}  
else if ((distance <= 30) && (distance >= 10))  
{  
  digitalWrite(red, LOW);  
  digitalWrite(orange, HIGH);  
  delay (500);  
}  
  digitalWrite(orange, HIGH);  
  delay(500);  
else {  
  digitalWrite(red, LOW); digitalWrite(orange, LOW);  
  delay (500);  
}
```

```
//buzzer
```

```
if (distance < 10) {  
  tone (buzzer, 1000, 500);  
else {  
  pinMode (buzzer, INPUT);
```

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```
noTone (buzzer);
```

```
}
```

```
//sensor 2
```

```
digitalWrite(trigPin2, LOW);
```

```
delayMicroseconds(2); digitalWrite(trigPin2, HIGH);
```

```
delayMicroseconds(10);
```

```
digitalWrite(trigPin2, LOW);
```

```
digitalWrite(buzzer, LOW);
```

```
duration2 = pulseIn (echoPin2, HIGH);
```

```
duration2=0.034*(duration2/2);
```

```
Serial.println(distance2);
```