

tinkercad.com/things/akqQbeU2yNk-epic-bruticus/editr

Epic Bruticus

All changes saved

Simulator time: 00:00:27

Code Stop Simulation Send Tr

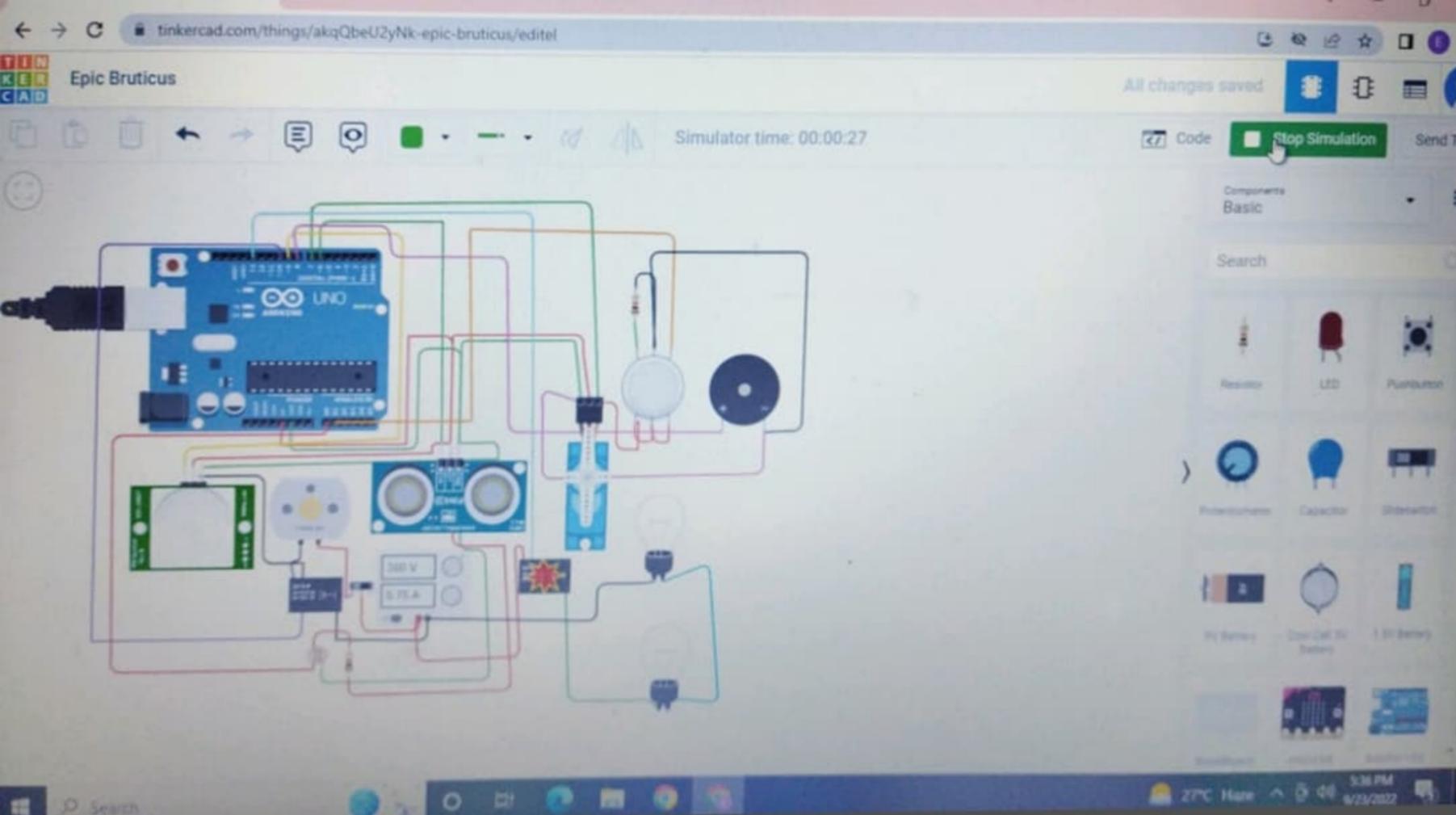
Components Basic

Search

Resistor LED Pushbutton

Power source Capacitor Diode

9V Battery DC-Cell 9V Battery 1.5V Battery





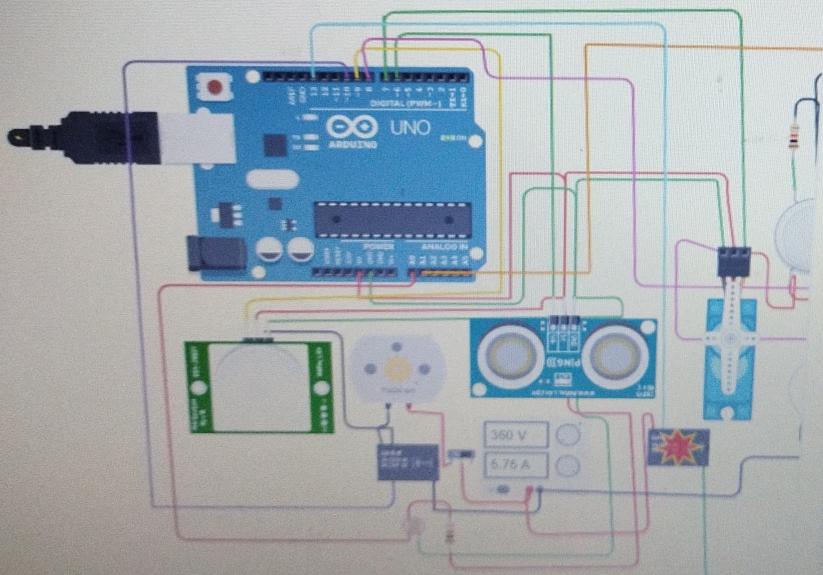
Simulator time: 00:01:43

Code

Stop Simulation



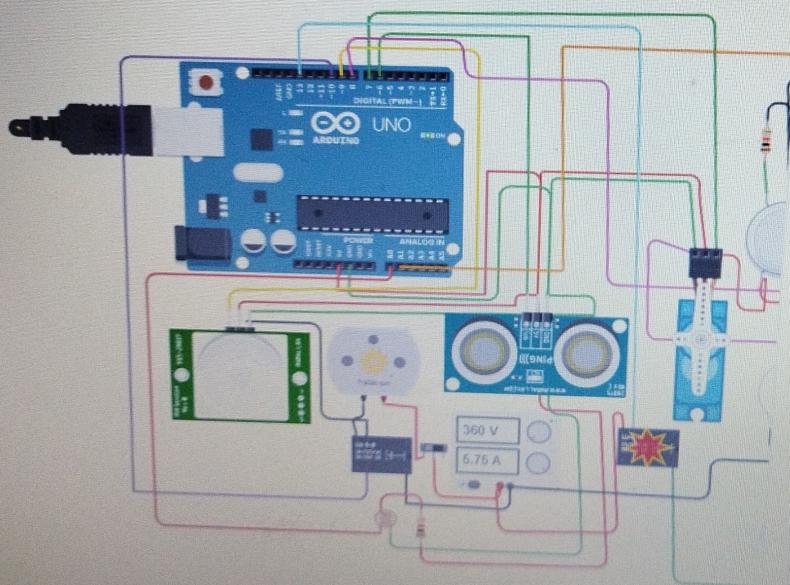
1 (Arduino)



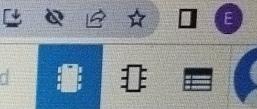
```
1 #include <Servo.h>
2
3 int output1Value = 0;
4 int sen1Value = 0;
5 int sen2Value = 0;
6 int const gas_sensor = A1;
7 int const LDR = A0;
8 int limit = 400;
9
10 long readUltrasonicDistance(int triggerPin, int echoPin)
11 {
12     pinMode(triggerPin, OUTPUT); // Clear the trigger
13     digitalWrite(triggerPin, LOW);
14     delayMicroseconds(2);
15     // Sets the trigger pin to HIGH state for 10 microseconds
16     digitalWrite(triggerPin, HIGH);
17     delayMicroseconds(10);
18     digitalWrite(triggerPin, LOW);
19     pinMode(echoPin, INPUT);
20     // Reads the echo pin, and returns the sound wave travel time
21     return pulseIn(echoPin, HIGH);
22 }
23
24 Servo servo_7;
25
26 void setup()
27 {
28     Serial.begin(9600);
29     // initializes serial communication
30     analogRead(A0); // INPUT
31 }
```



Serial



```
26 void setup()
27 {
28   Serial.begin(9600);           //initialize serial communication
29   pinMode(A0, INPUT);          //LDR
30   pinMode(A1, INPUT);          //gas sensor
31   pinMode(13, OUTPUT);         //connected to relay
32   servo_7.attach(7, 500, 2500); //servo motor
33
34   pinMode(8,OUTPUT);           //signal to piezo buzzer
35   pinMode(9, INPUT);           //signal to PIR
36   pinMode(10, OUTPUT);          //signal to npn as switch
37   pinMode(4, OUTPUT);           //Red LED
38   pinMode(3, OUTPUT);           //Green LED
39 }
40
41 void loop()
42 {
43
44   //----- light intensity control -----
45   int val1 = analogRead(LDR);
46   if (val1 > 500)
47   {
48     digitalWrite(13, LOW);
49     Serial.print("Bulb ON = ");
50     Serial.print(val1);
51   }
52   else
53   {
54
55 }
```



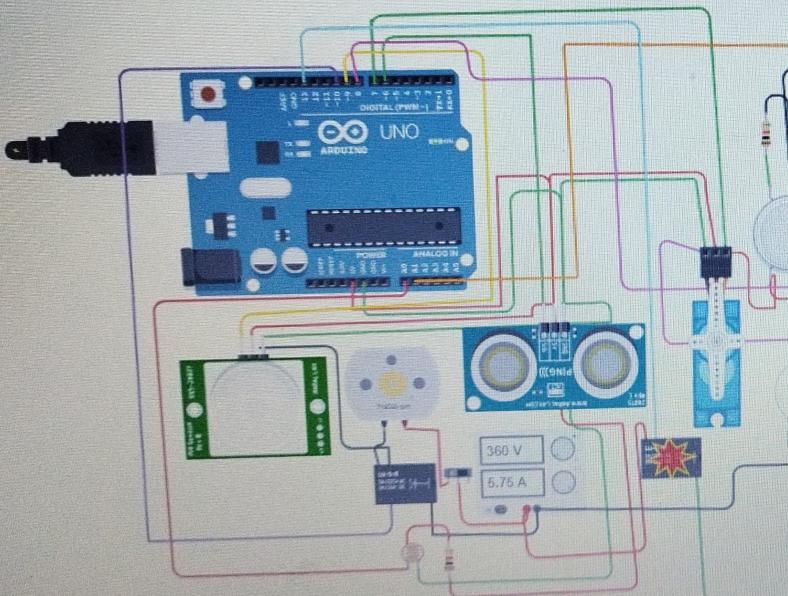
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Code

Stop Simulation

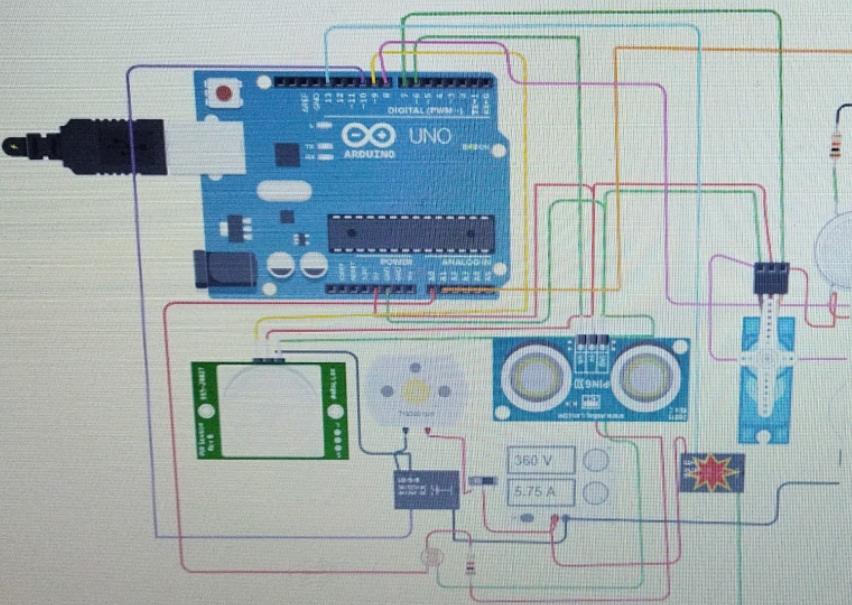
Send To

Simulator time: 00:02:29



```
54
55     else
56     {
57         digitalWrite(13, HIGH);
58         Serial.print("Bulb OFF = ");
59         Serial.print(val1);
60     }
61 //----- light & fan control -----
62 //----- Motion Sensor -----
63 sen2Value = digitalRead(9);
64 if (sen2Value == 0)
65 {
66     digitalWrite(10, LOW); //npn as switch OFF
67     digitalWrite(4, HIGH); // Red LED ON, indicating no motion
68     digitalWrite(3, LOW); //Green LED OFF, since no Motion detected
69     Serial.print("      NO Motion Detected      ");
70 }
71
72 if (sen2Value == 1)
73 {
74     digitalWrite(10, HIGH); //npn as switch ON
75     delay(5000);
76     digitalWrite(4, LOW); // RED LED OFF
77     digitalWrite(3, HIGH); //GREEN LED ON, indicating motion
78     Serial.print("      Motion Detected      ");
79 }
```

Serial Monitor



Simulator time: 00:02:50

Code

Stop Simulation

1 (Arduino Uno)

```
64 // ----- Gas Sensor -----//
65 //-
66 int val = analogRead(gas_sensor);      //read sensor value
67 Serial.print("||| Gas Sensor Value = ");
68 Serial.print(val);
69 //val = map(val, 300, 750, 0, 100);    //Printing in series
70 if (val > limit)
71 {
72     tone(8, 650);
73 }
74 delay(300);
75 noTone(8);
76
77 //----- servo motor -----
78 //-
79 servValue = 0.01723 * readUltrasonicDistance(6, 6);
80
81 if (servValue < 100)
82 {
83     servo_7.write(90);
84     Serial.print("||| Door Open! ; Distance = ");
85     Serial.print(servValue);
86     Serial.print("\n");
87 }
88 else
89 {
90     servo_7.write(0);
91 }
```

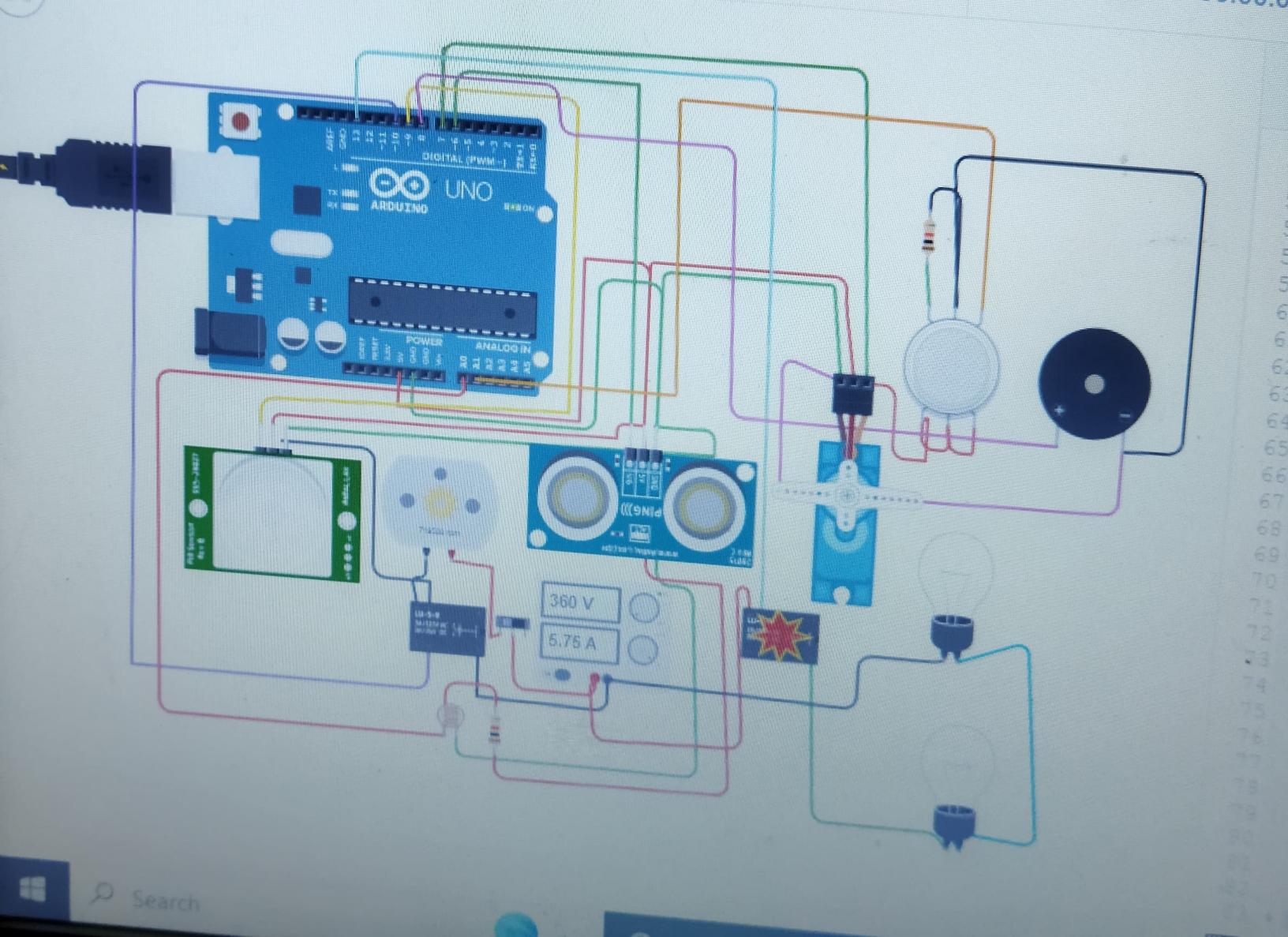
Serial Monitor



Search



5:38 PM



Search