

```
1  #include <Servo.h>
2
3  //servo
4  Servo servo1;
5
6  Servo servo2;
7
8  Servo servo3;
9
10 Servo servo4;
11
12 Servo servo5;
13
14 //servo
15 int i = 0;
16 //sound
17 int soundSensor = A0 ;// // LM393 Sound Sensor Digital Pin D0 connected to pin 10
18 //led
19 int LedPins[ ] = {2, 3, 4, 5, 6, 7, 8, 9, 10};
20 boolean LEDStatus=false;
21
22
23 void setup() {
24  ✓ //servo pin
25     servo1.attach(A1);
26
27     servo2.attach(A2);
28
29     servo3.attach(A3);
30
31     servo4.attach(A4);
```

```
32
33     servo5.attach(A5);
34 //sound
35 pinMode (soundSensor, INPUT);
36 //led
37 int index;
38 for (index = 0; index <= 5; index++)
39 {
40     pinMode(LedPins[index], OUTPUT);
41 }
42 Serial.begin(9600); //initialize serial
43
44
45 }
46
47
48 void loop() {
49     int SensorData=digitalRead(soundSensor);
50     Serial.println(SensorData);//print the value
51     //Sound triggered servo motoring.
52     if (SensorData==1){
53         //Controls the servo angle.
54         for (i = 0; i < 180; i++) {
55
56             servo1.write(i);
57
58             servo2.write(i);
59
60             servo3.write(i);
61
62             servo4.write(i);
```

```
65  
66     delay(3);  
67 }  
68  
69 for (i = 180; i > 0; i--) {  
70  
71     servo1.write(i);  
72  
73     servo2.write(i);  
74  
75     servo3.write(i);  
76  
77     servo4.write(i);  
78  
79     servo5.write (i);  
80  
81     delay(3);  
82 }  
83 }  
84 else{  
85     servo1.write(0);  
86  
87     servo2.write(0);  
88  
89     servo3.write(0);  
90  
91     servo4.write(0);  
92  
93     servo5.write(0);  
94 }  
95 if (SensorData==1) {
```



```
92
93     servo5.write(0);
94 }
95 if (SensorData==1) {
96     if(LEDStatus==false){
97         LEDStatus=true;
98         digitalWrite(LedPins[1], HIGH); //Turns on LED #0 (pin 4)
99         digitalWrite(LedPins[2], HIGH); //Turns on LED #1 (pin 5)
100        digitalWrite(LedPins[3], HIGH); //Turns on LED #2 (pin 6)
101        digitalWrite(LedPins[4], HIGH); //Turns on LED #3 (pin 7)
102        digitalWrite(LedPins[5], HIGH); //Turns on LED #4 (pin 8)
103        digitalWrite(LedPins[6], HIGH); //Turns on LED #5 (pin 9)
104        digitalWrite(LedPins[7], HIGH); //Turns on LED #0 (pin 4)
105        digitalWrite(LedPins[8], HIGH); //Turns on LED #1 (pin 5)
106        digitalWrite(LedPins[9], HIGH); //Turns on LED #2 (pin 6)
107
108     }
109     else if(LEDStatus==true){
110         LEDStatus=false;
111         digitalWrite(LedPins[1], LOW); //Turn off LED #5 (pin 9)
112         digitalWrite(LedPins[2], LOW); //Turn off LED #4 (pin 8)
113         digitalWrite(LedPins[3], LOW); //Turn off LED #3 (pin 7)
114         digitalWrite(LedPins[4], LOW); //Turn off LED #2 (pin 6)
115         digitalWrite(LedPins[5], LOW); //Turn off LED #1 (pin 5)
116         digitalWrite(LedPins[6], LOW); //Turn off LED #0 (pin 4)
117         digitalWrite(LedPins[7], LOW); //Turn off LED #2 (pin 6)
118         digitalWrite(LedPins[8], LOW); //Turn off LED #1 (pin 5)
119         digitalWrite(LedPins[9], LOW); //Turn off LED #0 (pin 4)
120     }}
121 }
122
```