

```
#include <Servo.h>
```

```
Servo myservo; // create servo object to control a servo  
// twelve servo objects can be created on most boards
```

```
int pos = 0;  
int buttonPin = 2;  
int LEDPin = 6;
```

```
void setup() {  
  myservo.attach(9); // attaches the servo on pin 9 to the servo object  
  pinMode(LEDPin, OUTPUT);  
  pinMode(buttonPin, INPUT_PULLUP);  
}
```

```
void loop() {  
  while (digitalRead(buttonPin) == LOW) { //Run loop when button is high)  
    digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)  
    delay(900); // wait  
    digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)  
    delay(900); // wait  
    digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)  
    delay(800); // wait  
    digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)  
    delay(800); // wait  
    digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)  
    delay(700); // wait  
    digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)  
    delay(700); // wait  
    digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)  
    delay(600); // wait  
    digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)  
    delay(600); // wait  
    digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)  
    delay(500); // wait  
    digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)  
    delay(500); // wait  
    digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)  
    delay(400); // wait  
    digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)  
    delay(400); // wait  
    digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)  
    delay(300); // wait
```

```
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(300);           // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(200);           // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(200);           // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(180);           // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(180);           // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(160);           // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(160);           // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(140);           // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(140);           // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(120);           // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(120);           // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(100);           // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(100);           // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(80);            // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(80);            // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(60);            // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(60);            // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(40);            // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(40);            // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(40);            // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(40);            // wait
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
```

```

delay(40); // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(40);
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(40); // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(40);
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(20); // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(20);
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(20); // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(20);
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(20); // wait
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)
delay(20);
digitalWrite(6, HIGH); // turn the LED on (HIGH is the voltage level)
delay(1000);
digitalWrite(6, LOW); // turn the LED on (LOW is the voltage level)

for (pos = 0; pos <= 180; pos += 3) { // goes from 0 degrees to 180 degrees
  // in steps of 1 degree
  myservo.write(pos); // tell servo to go to position in variable
'pos'
  delay(15); // waits 15ms for the servo to reach the
position
}
for (pos = 180; pos >= 0; pos -= 5) { // goes from 180 degrees to 0 degrees
  myservo.write(pos); // tell servo to go to position in variable
'pos'

}
}}

```