**Arduino UNO- Servo Motor (Set Up)**

A Servo Motor is a special kind of motor that has the ability of rotating but only between 0-180 degrees, back and forth but it can’t spin in a full 360. Servo motors are used to control the position of objects, rotate objects, move robot legs, arms or hands, move sensors, etc. with great precision. Servo motors are small and since they have built-in circuitry to control their movement, they can be plugged directly into an Arduino.

* **Here is the simulator link used in this project:**

TinkerCad : [tinkercad.com/circuits](http://www.tinkercad.com/circuits)

* **Components List:**

1. Arduino Uno R3
2. Servo Motor
3. Breadboard

* **The servo motor have the following three connections:**

Black ground wire.

Red power wire (around 5V).

Green Signal wire.

* [**The code:**](file:///Users/shathaalshehri/Desktop/Task%201.2%20-%20Servo%20Motor/Servo.ino)

//

#include <Servo.h>

int position = 0;

int i = 0;

int j = 0;

Servo servo\_9;

void setup()

{

servo\_9.attach(9, 500, 2500);

}

void loop()

{

position = 0;

for (position = 1; position <= 179; position += 1) {

servo\_9.write(position);

delay(20); // Wait for 20 millisecond(s)

}

for (position = 179; position >= 1; position -= 1) {

servo\_9.write(position);

}

}

[Servo Motor Simulation](file:///Users/shathaalshehri/Desktop/Task%201.2%20-%20Servo%20Motor/Servo%20Motor%20simulation.mov)

Diagram

Description automatically generated