

## Project Description:

This project demonstrates how to control the rotation of a **servo motor** using an **Arduino Uno**. The servo is programmed to sweep back and forth between 0° and 180° using **PWM (Pulse Width Modulation)**. The simulation is built using **TinkerCAD**, an online electronics design platform.

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## Components Used:

- **Arduino Uno** – Microcontroller to control the servo
  - **Servo Motor (SG90 or similar)** – Rotates shaft at specific angles
  - **Jumper Wires** – For making connections
  - **TinkerCAD** – Simulation software for virtual circuit building
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## How It Works:

- The **servo motor** receives PWM signals from the Arduino on **digital pin 7**.
- The servo rotates from **0° to 180°** and then back to **0°**, with a delay between steps.
- The loop keeps running, allowing continuous sweeping motion.