# Check if Servo Motor of Ball Thrower Can Work as Expected

# Summary

## Location & Date

Ground LAB C Block – 9/12/2022 19:00

## Description & Aim

In the project, a servo motor is placed next to the ball thrower’s tank, and it supplies vertical angle changes fort he ball thrower. Aim of this test is to check if the servo motor is working properly in desired limits. Ground truth is protactor with right angle measurements.

## Participants

TBD

# Preconditions & Environment Requirements

* Arduino
* Servo Motor
* Protractor

# Scenario

|  |  |  |  |
| --- | --- | --- | --- |
| **Step** | **Data** | **Expected Result** | **Actual Result** |
| Connect Servo Motor Directly to the Arduino | - | - | - |
| Write a Code with 10° Angle Changes every time step in Arduino | - | - | - |
| Compile and Upload the Code to Arduino | - | RX TX leds of the Arduino blinks | - |
| Time Step 1 | 10° | * Protactor angle should show 10° |  |
| Repeat Previous Step 1 for 10 times | 20°, 30°, 40°, 50°, 60°, 70°, 80°, 90°, 100° | * Protactor angle should show 20°, 30°, 40°, 50°, 60°, 70°, 80°, 90°, 100° |  |
| Write and Upload a Code with 5° Angle Changes every time step in Arduino |  |  |  |
| Time Step 1 | 5° | * Protactor angle should show 5° |  |
| Repeat Previous Step 1 for 10 times | 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°, 50° | * Protactor angle should show 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°, 50° |  |
| Write a Code with 100° Angle Changes in Total in Arduino |  |  |  |
| Uploaded Code runs and changes the servo motor angle | 100° | * Protactor angle should show 100° |  |