# Check if ball-thrower can throw ball with manually entered input speeds

# Summary

## Location & Date

TBD

## Description & Aim

After combining minor components, we need to check if ball-thrower can throw balls with desired speed and desired direction.

## Participants

TBD

# Preconditions & Environment Requirements

1. Power Supply
2. Ball
3. Ball-Thrower Body with controller elements

# Scenario

|  |  |  |  |
| --- | --- | --- | --- |
| **Step** | **Data** | **Expected Result** | **Actual Result** |
| Check if all motor components are connected to input terminal | - | All motors should be connected to the related port of motor driver |  |
| Then, power up controller but not dc motors | 5V | Arduino and Controller Circuit leds should be activated |  |
| Then, set PWM of motor controller inputA | 20% | Only motors 1 should starts to run |  |
| Then, push a ball to the barrel and check if it is thrown by whell |  | Ball, should be thrown with low speed |  |
| Then, change the PWM of motor controller inputA | 70% | * Motor should accelerate * Possible “zzz” noise can be occurred * Motor should run continously |  |
| Then, change the PWM of motor controller inputA | 0% | Motor 1 should decelerate and stop. |  |
| Then, repeat the steps above for the motor 2 | - | - |  |

# Check if balls are sent to barrel with manually entered input speeds

# Summary

## Location & Date

TBD

## Description & Aim

Balls should be pushed to the barrel in order to throw them. Thus, we build a push mechanism that contains a turning platform and 1 dc motor.

## Participants

TBD

# Preconditions & Environment Requirements

1. Balls
2. Box Mechanism which contains all dc motors, turning platform(floor) and controller

# Scenario

|  |  |  |  |
| --- | --- | --- | --- |
| **Step** | **Data** | **Expected Result** | **Actual Result** |
| Check the motor is connected to the input terminal. |  | Motor terminals should be connected the terminals properly. |  |
| Then, give power to the controller but not motors. |  | Arduino and Controller Circuit leds should be activated |  |
| Then, set PWM of motor controller | 30% | Balls should be pushed to the barrel slowly (1ball/1 sec) |  |
| Then, change the PWM of motor controller | 80% | Balls should be pushed to the barrel fastly (2 balls /3sec) |  |