**My COBOT lab-1**

In this lab, I have got a basic understanding of the design of the **myCobot** (a 6-axis series robot) and establishing a communication of **myCobot** with my software setup, in order to perform different tasks and movements.

First, I started with installing the *pymycobot* package in my python environment. And then cloned the *pymycobot* GitHub source code in my path, to run the *setup.py* python file. Then navigated to my device manager to find out the COM port. And then moved on to downloading the **myCobot** releases. And unzipped them. Used *myStudio* to flash *Atom* (Once we download and Flash Atom).

Once the setup is ready. I set all the motor positions to Zero (Making sure all my COM port and Baud rate is correctly assigned) and then calibrate it (**Calibration.py**). After reaching here, I have taken some time to tweak the different joint angles and looked at the arm movements. Also tweaked the speed to see how the robot is doing. Once this is done, set different colors (blue, red, green). Once this exercise(**set\_angles\_colors.py**) is done, now I have got confidence in handling the **myCobot**. Later attached the grabber as an end effector to **myCobot**to do the Lab.

Are the axes defined as you expected?

While we get the spatial coordinates of the head of the robot arm at this time and the current posture, the axes defined are as I expected.

**Serial number of My Cobot: *ER28001202200475***

**Prerequisite**

**Code: (Lab\_1.py)**

# Import the necessary libraries

from pymycobot.mycobot import MyCobot  
import time

# Initiating the library by letting the cobot to connect from the mentioned port serial port and baud rate

# Create object  
mc = MyCobot("COM3", 115200)

# Return the robotic arm to zero

# First, set all positions of the motors to 0 degrees  
mc.send\_angles([0, 0, 0, 0, 0, 0], 50)

# A time delay of 5 seconds  
time.sleep(5)

# open the gripper halfway  
mc.set\_gripper\_value(50, 50)

# A time delay of 5 seconds  
time.sleep(5)

# releasing the motors  
mc.release\_all\_servos()

# Starting an infinite loop to extract and print the angles of the motors of the cobot.  
i = 1  
while i == 1:  
 print("::get\_angles() ==> degrees: {}\n".format(mc.get\_angles()))

time.sleep(0.5)

**Video link : https://drive.google.com/drive/u/0/folders/15luwKPU5vOV8Dt3ie5V469aDQSqoUZHK**