

## Assignment 6

Problem Statement : Develop an android based FAN regulator using open source hardware platform like actuator (a servo motor)

### Theory

#### \* Servo Motor

Using a servo motor is common in robotics for precise control

It is rotary actuator or linear actuator that follows for precise control of angular or linear position, velocity and acceleration

#### \* Material Required

- 1) Arduino UNO
- 2) Servo Motor
- 3) Breadboard
- 4) Connectivity wires

Module works on 5V supply. If the supply signal pins operate on 3.3V, hence a 3.3V regulator is present in the module itself.



## Pin Connections

Sr no.	Pin no. HC-05/ HC-06	Pin name on MCV	Pin no. in PIC
1	VCC	Vdd	31 <sup>st</sup> pin
2	VCC	gnd	3 <sup>rd</sup> pin
3	Tx	RC6/Tx/Ck	25 <sup>th</sup> pin
4	Rx	RC7/Rx/DT	26 <sup>th</sup> pin
5	State	NC	NC
6	En (Enable)	NC	NC

## Advantages of Servo Motor

- 1) Can handle heavy load automatically
- 2) High Speed operation is possible

## Disadvantages of servomotors

- 1) It requires tuning to stabilize the feedback
- 2) Peak torque is limited to a 1% duty cycle

Conclusion - In this way, I have developed an android ~~FAN~~ regulator.