

## Joystick Using 4 DOF Platform Motion Control System.

### About This Project:

We are in the digital era and in these modern times, we not only use technology to solve our daily matters but also to solve some problems that require precision and accuracy. In our proposed project, we are working with the Arduino family board which is the Arduino Nano to efficiently control 4 servo motors using the a joystick module. The control of these 4 servo motors may seem like it doesn't mean anything but when you use them in a structured way they become a powerful tool which can be used to perform tasks with accuracy and tasks that are very difficult for human beings to do. The 4 servo motors form the pillar of a flat surface on which objects can be kept to be balanced manually by moving the stick. The movement of the stick is read by the Arduino and then movement commands are sent for the servo motors to follow.

### Block Diagram:

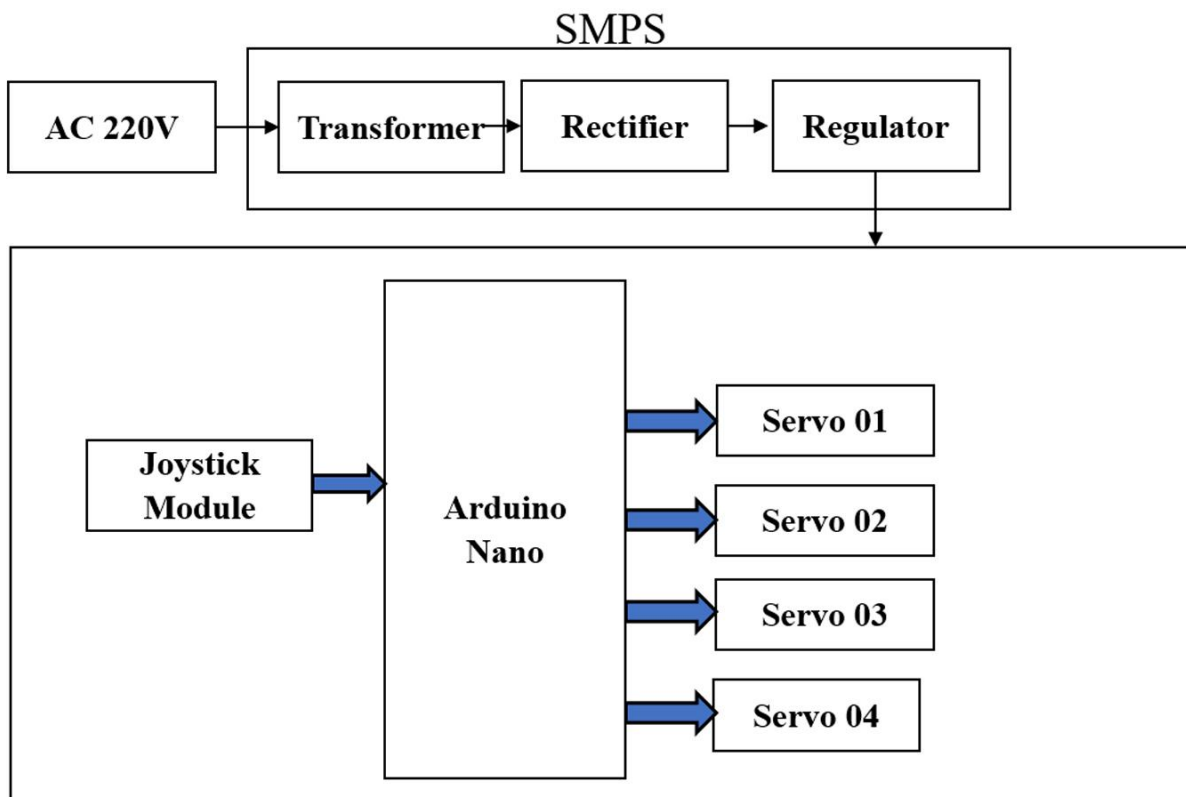


Figure: Block Diagram of Joystick Using 4 DOF Platform Motion Control System.

## Required Instruments:

- SMPS
- Arduino Nano
- Joystick Module
- Servo Motors
- Transistor BC547
- Relay
- PCB Board
- Wires for connection

## Advantages:

There are many advantages of our project because of its accuracy. Some of the advantages are pointed out below:

- Our project is fully automatic and user-friendly.
- Requires no skill at all to operate the thing.
- The project is compact so takes up less space.
- The products used in our project development are easy to find in the market so maintenance is not a big concern.
- Helps to reduce human efforts.

## Applications:

The application areas for this project in this modern and practical world are huge and some of these are given below:

- The system can be used to automate vehicle driving
- It can be effectively used by people with various physical disabilities
- The project can be used in industries for object motion control
- Different government task forces can use it to perform delicate operations

**N.B:** *Any modification of this project can be done as per your requirement. We will make the project according to your needs. Contact us with your any innovative engineering projects idea. We will help you to implement your project.*

### Office:

Road#04, Plot#03, Sec#6/Ka,  
Mirpur-2, Dhaka-1216

### Web & Mail:

[www.projects.zeronebd.com](http://www.projects.zeronebd.com)  
[projects.zeronebd@gmail.com](mailto:projects.zeronebd@gmail.com)

### Contact:

01676 99 80 99  
01714 80 84 02