Testing Instructions

This file contains testing instructions for Buzzer, Standard Servo, Motor Driver, Motor Encoder and LCD along with ATmega2560 Development board.

Make sure you have followed instructions given in **Assembly of Hardware.pdf.**

Steps to follow in the testing instructions:

1. Assemble the circuits which is as shown in the **Assembly of Hardware.pdf** provided to you.
2. Follow the instruction given in **NEX AVR USB ISP STK500V2.pdf** to burn the hex file.
3. Burn the appropriate hex files provide in **HEX** folder to test the following components.

- Buzzer
  a) Check the connection of buzzer with the Atmega 2560 Development Board.
  b) Burn **buzzer_test.hex File**
  c) Beep sound from buzzer indicate the successful testing of buzzer.
- LCD
  a) Check the connection of LCD with the Atmega 2560 Development Board in **Assembly of Hardware.pdf** .
  b) Burn **LCD_test.hex** File
  c) Displaying "Testing Done" on LCD indicate LCD test is complete.
- Servo
  d) Check the connection of Servo with the Atmega 2560 Development Board in **Assembly of Hardware.pdf** .
  a) Burn **servo_test.hex** file
  b) Servo moving at different angle with some delay indicate servo test is complete.

Note: Similarly, You can check the other provided servo motor

- DC Motor
  a) Check the connection of Servo with the Atmega 2560 Development Board in **Assembly of Hardware.pdf** .
  b) Burn **motor_test.hex** File.
  c) Motor moving in forward and backward direction indicates the Motor test is complete
- Encoder
  a) Check the connection of Servo with the Atmega 2560 Development Board in **Assembly of Hardware.pdf** .
  b) Burn **encoder_test.hex File**
  c) Value of encoder will be printing on serial port. To check the value on serial port follow the following procedure
  d) **Monitoring Output on Serial Terminal**
    - ❖ Use Tera Term to view the encoder values.
    - ❖ Install Tera Term from the link given.
    - ❖ Go to Setup->Serial Port.
    - ❖ Set the Speed (Baud Rate) to 57600.
    - ❖ Rotate the motor forward and backward direction by hand
    - ❖ You will be able to view the encoder values on Tera Term

Refer this video link on : How to do the hardware testing and record a video and submit.

Submission Instruction:
After successful testing of the hex file provided to you, make a video of the whole testing process and submit the you tube link of video on portal.

All The Best !!