

Robotics Competition 2019-20

Hardware Testing - Read Me

Please find the following folders within **Hardware_Testing** folder that contains this Read Me file:

- 1. Hardware Testing Instructions.pdf: This document contains instructions for interfacing Li-ion battery, Line Follower Array, VL53L0X Sensors, Motor Driver and N20 motors with eYFi-Mega board and testing them.
- 2. Software Testing Instructions.pdf: This file contains instructions for testing the eY-IDE provided to you. Here you will be flashing four different experiments to the eYFi-Mega board using 2 (Two) different flashing techniques.
- Test Files: Please find the following files in this folder:
 - ✓ Batter_Level_Monitoring.bin: This file is used to test the hardware specified in Testing Battery Monitoring Section of Hardware Testing Instructions.
 - ✓ LFA_MCP23017.hex: This file is used to test the hardware specified in Testing Line Follower Array Section of Hardware Testing Instructions.
 - ✓ VL53L0X_Multiple.hex: This file is used to test the hardware specified in Testing VL53L0X Sensors Section of Hardware_Testing_Instructions.
 - ✓ Motor_Driver_L9110s.hex: This file is used to test the hardware specified in Motor Driver and N20 Motor Section of Hardware Testing Instructions.
 - ✓ 1_Digital_Output: This is the Example code for ATmega 2560. It has to be used as specified in Software_Testing_Instructions.
 - ✓ 5_Analog_Output_PWM: This is the Example code for ATmega 2560. It has to be used as specified in Software Testing Instructions.
- Manuals: This Folder contains the Hardware and Software Manuals of eYFi-Mega development board and Hookup guide for Line Follower Array (eY-LFA).

Video:

Make a single video to showcase the Hardware Testing using good quality camera. The resolution of the video should be good enough. You have to use a 5 Megapixel or higher camera to shoot the video.

The video should demonstrate the working of all the provided components and if there is any fault in any of the component explain that in detail.





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Please note while recording the video one team member should explain the problems in the hardware if any. Maximum time limit of video: 3-4minutes.

Upload the video on YouTube and provide the link on the portal under the **Robotic Kit** page on portal. If there is any problem in the hardware then post your query on the Piazza mentioning your Team ID and the fault in the hardware. No need to post the video link again on the Piazza.

