

## Task 2.1 – Testing Hardware

Hardware required:

1. Atmega 2560 Development Board
2. XBee modules, XBee USB Adapter and USB cable
3. MPU6050 sensor module
4. Motors with quadrature encoder
5. 10 K-ohm resistors
6. Li-Po Battery
7. Connecting wires

Software required:

1. Arduino
2. Xctu
3. Avrdude

This file contains instructions to test all the given hardware.

- Get familiar with Arduino IDE and programming through STK500.
- Configure and test your XBee modules using XCTU following the instructions in *Configuring XBee Modules with XCTU.pdf*. Do not disturb the connections and proceed to test your software.
- Make board for connecting Motor and Quadrature encoder by following *Making board for Motor and Quadrature encoder.pdf*
- Connect hardware as mentioned in *Assembling Hardware for Testing.pdf* and prepare documents and folder as instructed.
- Open *Testing\_Hardware.pdf* in the folder for testing hardware.
- As you test hardware you have to make a video as instructed in *Testing\_Hardware.pdf*

**Instructions for uploading the video are provided in the Task 1 tab of the portal and follow instructions in *Task2\_Read\_me.pdf* for documents and folder submission.**