Navigation Report 1

1. Τι?
2. Get familiar with SEN0140 (IMU), DSBoard-XV2 board and Jetson
3. Check how SEN0140 IMU connects to DSBoard-XV2 Jetson board
4. Get familiar with VSCode
5. Get familiar with Github
6. Get familiar with rulebook
7. Get GitHub Pro
8. Γιατί?
9. In order to use the accelerometer, magnetometer, gyroscope and temperature/pressure sensors properly when working on the navigation task. This requires knowledge over both the IMU and the DSBoard-XV2. It will also help on the following task
10. In order to receive information from the sensor on the main controller and feed it power.
11. In order to write the code needed for controlling the various hardware components of the navigation tasks and/or software ones such as topics/nodes and to control the flow of information between them. It will also be a useful tool for almost every other task. (and because VSCode is the best source code editor)
12. In order to collaborate and work on the same project as a group of people. Version control is paramount in such cases.
13. In order to be prepared for the ultimate goal which is, ofcourse, to win the competition and keep the rules in mind while working on tasks.
14. Because GitHub Pro is better than GitHub and free for students
15. Πως?
16. Read docs, specifications, watch videos etc
17. The IMU needs power (Vss & GND) and 2 more connections for outputting serial data & clock (i.e. SDA, SCL). Jetson board will provide the power, ground via the DIGITAL OUT0 (pin 13) and GND ISO (pin 10) pins, respectively. IMU will provide data in the RS-422 B (pin 1), RS-485 A (pin 2) pins of Jetson board. (check Images folder)
18. Read docs, watch tutorials, download, experiment etc
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20. Read some basic points of the rulebook
21. Sign up to GitHub academy