AI Robotics and Automation
AIDI1012 - 2023 Winter
Deadline: Friday 04/21/2023
Complete and submit Jetson Nano project (40% of final mark)
Term Project Instruction
Jetson NANO Developer Kit

The final project for each group must include the following sections:

- **First part of submission (out of 100)**
→ The basic and acceptable level the project must cover: **(50-65 out of 100)**
    - o Either **Road Following**
    - o Or **Object Following**
    - o See
        - ▪ "jetbot/notebooks at master · NVIDIA-AI-IOT/jetbot · GitHub"
        - ▪ "(8) Jetson AI Fundamentals - S2E4 - JetBot Road Following - YouTube"

→ The advanced level of the project must cover: **(66-80 out of 100)**
    - o Both **Road and Object Following**
    - o See
        - ▪ Jetbot Road Following and Collision Avoidance

→ The most advanced level of the project must cover: **(>80 out of 100)**
    - o Running two or more Jabot to follow road, object and avoiding collision
        - ▪ JetBot: Road Following + Collision Avoidance
        - ▪ Combined Jetbots
        - ▪ Nvidia JetBot - Jetson Nano Collision Avoidance - March 2019

So, more complicated training will get higher marks

presentation

The presentation of your project as a final product must include the following elements:

- **Second part of submission (out of 20)**
- ➢ Maximum 5 minutes of recording (please explain your work while you are recording)
    - o Jetbot Preparation
    - o Data collection
    - o Jetbot training steps
    - o While the Jetbot is running and following the training algorithm (As mentioned in first section of the Project Instruction)
- ➢ The presentation could be held on the last day of the class volunteering on Friday 21/04/2023 as well as submitting your record, slides, and codes **(10 points for the class presentation)**
- ➢ Maximum 3 slides in PowerPoints to explain
    - o About issues, difficulties you have been involved with
    - o How you resolved them
    - o How you can improve your Jetbot training

- **Third part of submission (out of 20)**
    - o Submit All the coding files you used either in Jupyter Notebook (.ipynb) or Python (.py) format

- ❖ *Out of 100 + 10 for class presentation = 40% of your final mark*
- ❖ *You must submit all the files/documents/record (clip) and coding related to the project in one* *.zip *file.*
- ❖ *Sumit the zip file either through the course website or by email.*
- ❖ *Each group must submit just one zip file for all the members.*
- ❖ *On the first slide, you must add the name of members of the group.*
- ❖ *For the zip file choose the following combination for the name for the zip file.*
    - o *"Group name"- "Number of students in the group".zip*
        - ▪ *For example: A2-5.zip*
        - ▪ *Use "A" for the morning session and "B" for afternoon*

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Deadline to submit on Friday 04/21/20223