School of Informatics & IT

**Diploma in Applied Artificial Intelligence**

AY2023 Semester Level 3

**MP Weekly Project Progress Report**

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| **Project Title: Nvidia TX Autonomous Vehicle** | |
| **Student Name: Maximilian See Tze Jie** | **Adm No: 2102869A** |
| **Supervisor Name: Mr Tan Sio Poh** | **Week No: 5** |

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|  | **Tasks Completed** |  |  |  |  |  |
|  | Rolled back both systems to ubuntu 18.04 |  |  |  |  |  |
|  | Set Up of Network |  |  |  |  |  |
|  | Flashing the Arduino and getting the Arduino cable (USB-B) |  |  |  |  |  |
|  | Compilation of most packages and libraries |  |  |  |  |  |
|  | Got the robot working |  |  |  |  |  |
|  | Nvidia drivers were not installed (Do not need) |  |  |  |  |  |
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|  | **Issue/Risk Tracking** |  |  |  |  |  |
|  | Issue/Risk Name |  | Status | | |  |
|  | Faulty switch fails to activate the battery into a constant power state to the polulu board (Green). This causes the motor to not receive power. Solution is to go to Sim Lim square to get a replacement switch and work with Dr Yap to fix the switch. |  | Not Done: Schedule on Tues to get the parts. Meeting with Dr Yap not set | | |  |
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|  | Configuring the image recognition model to work with movement (see traffic sign -> turn left). There is some refining to be done |  | Partially Done | | |  |
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|  | **Meeting minutes with MP supervisor** | | | | |  |
|  | Fixed the bugs in an online meeting where we streamed our bugs.  Ryu and I managed to get everything on the software side working. | | | | |  |
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|  | **Weekly Self-Reflection** *(no more than 150 words)*  We successfully initiated the robot and modified its training model. Testing was carried out on the older robot due to challenges with the newer one's hardware. Some context: While Ryu focused on creating the caffe model, I tackled wiring and robot functionality. Although the software seemed fine, hardware issues, initially attributed to a loose connection, were discovered. Rostopic list analysis revealed no motor power flow (0 Amps). Investigation revealed a faulty red power switch, unable to provide consistent power to the Polulu board, hence hindering motor function. Consequently, the robot displayed software proficiency but couldn't move due to hardware limitations. | | | | |  |
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