Group Name: Major Project Group 3

Agenda
1. Finally fix the servo issue in the Lidar sensor module
2. Finish the gyroscope module
3. Test the image serial input and output

Meeting on 25/5/2021, 15:00
Location: Lab/Discord
Duration: 3 hours
Attendees:

James Hanna	Rishabh Leelchand	Harry Jia	Devansh Shah

Updates from past meeting:
The servo issue still persists, however progress has been made on the Lidar sensor distance code. Also, the gyroscope module has been more or less completed, with just a bit of minor testing required. The image module also needs testing.

Minutes
1. The horizontal servos are still acting up, even after trying to debug them quite a bit
   a. The tutor suggested plugging the servo pins into the oscilloscope and investigating the signals being output into the Lidar sensor
2. After plugging the pins into the oscilloscope:
   a. The vertical servo is showing a healthy signal compared to the horizontal signal with the period being much longer than the latter.
   b. This suggests a possible problem with the way we setup the period of the PWM signal in servo 2
   c. Or even a problem with the clock cycle setup
3. After a more thorough digging, the problem turned out to be the clock setup of the horizontal servo. The register was just set to 4 instead of the actual value. Classic mistake.
4. The servo now works as intended
   a. It works very smooth now and does not violently shake as before
   b. It even follows the input angle precisely
5. The delay in the signal cycle seems to not be working now
   a. However, this should be an easy fix
6. The image module was tried to be tested:
   a. However, some issues occurred
   b. The serial output data type was not taken into consideration with the python program causing errors with the data types of one of the variables

Action Items

Action	Person to do	Deadline
Work on integration of the Lidar sensor module and servo	James	By next meeting
Fully implement the gyro module and write up the minutes	Rishabh	By next meeting
Finish up the Serialization module	Devansh	By next meeting
Finish up the Image module, fixing the serial connection	Harry	By next meeting