CC3501 weekly report template

**Group number:** 2 **Team members:** Ethan Waters, Lachlan Pryce  
**Week number:** 6

**Progress this week**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **Who did it?** | **What were the outcomes?** | **Who did the peer review?** | **What did you learn?** |
| Continue work on sensor schematic. | Lachlan | First version of sensor schematic completed. |  | 4 wire SPI configuration |
| Investigate methods of calibrating IMU. Perform test calibration of 9 DoF IMU (MPU9250) using existing sensor library. | Lachlan | Existing sensor calibration library was configured for selected IMU (LSM9DS1) and so ‘calibration’ was not achieved. |  | Calibration should be performed once final install is complete. After calibration, magnetic offset values can be hardcoded before a orientation algorithm is applied. |
| Complete work on CAN bus for RP2040 | Ethan | Entire Schematic Complete |  | CAN bus protocol |
| Complete work on wifi schematic | Ethan | Entire Schematic Complete | Lachlan | How to interface with ESP32-C3 and setup flash memory |
| Complete work on main schematic | Ethan | Entire Schematic Complete |  |  |

**Overall project tracking:** [fill this in at the beginning of the project and update weekly based on actual progress]

|  |  |
| --- | --- |
| **Week number** | **Milestones** |
| 1 | Confirm project topic and begin |
| 2 |  |
| 3 | Arm can move with an input from a socket. The input is an automated test script executed by a client to mimic the embedded system output |
| 4 | Select components & review datasheets |
| 5 | Begin schematic |
| 6 | Complete Schematic, forward to Bronson for feedback. |
| 7 | Submit Design. Complete implementation of Kalman filter to observe difference and work with data. |
| 8 | Work on vision based movement with PI while waiting for embedded systems |
| 9 | Work on vision based movement with PI while waiting for embedded systems | Any other code that can be done before |
| LR |  |
| 10 |  |
| 11 |  |
| 12 |  |
| 13 | Demo day during Friday lab |