Problemi da risolvere:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | TO DO | Reference for Questions | Folder Material | Notes |
| **0** | **Simulink Architecture** |  |  |  |
|  | … |  |  |  |
|  | … |  |  |  |
| **1** | **Throttle%[pwm] to Torque[kg]** |  |  |  |
|  | Assemblaggio braccio in mettallo che non fletta |  |  | Gabriele Beltrami handeld it |
|  | Saldatura resistenze cella di carico al driver. |  |  |  |
|  | Scrittura codice c++ di calibratura. | Allegri A. | MOTOR > LOAD\_CELL | done |
|  | Assemblaggio motore alla cella. |  |  | Plastic support should work (plastic works well with compression stress) |
|  | Codice c++ per spinnare motore |  |  | 5% increase, wait for the motor to get to regime |
|  | Codicec c++ per prendere misure ed espertarle. | Allegri A. |  | In doing |
|  | Esperimento ed output csv. |  |  |  |
|  | Regressione matlab: |  |  | Riccardo Agostinis can manage that. |
|  |  |  |  |  |
|  | Power consumption estimation problem. Is there a way to improve this from this test? |  |  | For the only purpose of the rover competion, we can just see how long do the batteries last with 4 propeller going at 100% and see how long we expect our mission to be completed, and confront the 2 times. |
|  |  |  |  |  |
| **2** | **IMU** |  |  |  |
|  | Codice c++ per calibrazione. |  |  |  |
|  | Codice c++ per IMU filters |  |  | Look at Magdwick filter for IMU. Should be already implemented on Arduino |
|  | Is IMU good enough to make it hover? |  |  |  |
|  |  |  |  |  |
| **3** | **Remote Control implementation** |  |  |  |
|  | What’s the Hardware: receiver and transmitter |  |  | Talk to Simone Tuminello |
|  | Codice c++ per implementation |  |  |  |
|  | Codice c++ per setpoint generation |  |  |  |
|  | Emergence Stop (there must be also another emergence button stop?) |  |  |  |
|  |  |  |  |  |
| **4** | **Flight Control Code** |  |  |  |
|  | Put down the general structure and functions.  What calls what, priority levels in the funtions.  Main loop time for discretization. And others. |  |  |  |
|  | Rewrite control loop with good software etiquette (remove global variables) |  |  | Should we implement vector and matrixes libraries or keep only scalar functions and operations? |
|  | … |  |  |  |
|  | … |  |  |  |
|  | … |  |  |  |