# Appendix D: Design Completion Form

*To be completed by the lab supervisor during the time in the lab to record milestones.* ***This form is an example and you MUST edit it to identify your own milestones*** *(10-15) that you will attempt to meet during the progression of your design. Think about MILESTONES (what you’ll show/deliver) rather than TASKS (what you’ll do). You should aim to have a few milestones per subsystem (which probably build on each other), plus a couple of system milestones reflecting system integration. A single copy of this form should be printed, on one sheet of Landscape A4 paper, and brought to each lab session. It will be finalised by 17:00, on Monday 13th March.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Component of system/Milestone | Supervisor | Time/Date | Comments (all/part/none working; protoboard/constructed) | | | |
| Wireless modules interfaced with embedded devices |  |  | Using SPI | | | |
| Motor drive interfaced with embedded device |  |  |  | | | |
| Power management of complete UAV |  |  | \_\_\_\_\_ mA , at \_\_\_\_\_ V = \_\_\_\_\_\_ mW. Batteries should last for \_\_\_\_\_ hrs. | | | |
| Transmitting data from one Il Matto using one wireless module |  |  |  | | | |
| Receive transmission on another Il Matto interfaced with another wireless module |  |  | Receiving at >200 packets/s | | | |
| Achieve two-way communications between both Il Mattos through the radio channel. |  |  | Receive at 200 packets/s with transmission back at 1 packet/s | | | |
| Interface one Il Matto with 2 transceiver modules, one for transmission and another for receiving. |  |  | SPI | | | |
| Achieve two-way communications between both Il Mattos using two transceivers on each end. |  |  |  | | | |
| Potentiometer readings from the controller to the Il Matto. |  |  |  | | | |
| Multiplexing between 4 potentiometers inputs and buttons in the Il Matto. |  |  | ADC for the potentiometers | | | |
| UI from PC sends K values to the ground comms Il Matto. |  |  | UART | | | |
| K values transferred from the PC to the drone via the RF communications link |  |  | PC -> (UART) -> Base Il Matto -> (SPI) -> Radio link -> (SPI) -> Drone Il Matto | | | |
|  |  |  |  | | | |
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|  |  |  |  | | | |
| Complete system is integrated and can lift a cargo of \_\_\_\_ g |  |  | Mass without cargo \_\_\_\_\_\_ g, Dimensions without cargo\_\_\_\_\_ cm | | | |
| Milestones finalised by supervisor: | ……………………………………………… Signed ………………………………………………………… Date | | |  |  |
| Prototype hardware handed over to: | ……………………………………………… Signed ………………………………………………………… Date | | |  |  |
| Other items returned to Lab support hatch and checked by: | ……………………………………………… Signed ………………………………………………………… Date | | |  |  |