Task list:

* 02/03 Calibrate ESC with mission planner
* 02/03 Test ground connection with hardware
* 26/02 Install Rpi into V2 drone frame
* 26/02 Rpi + Navio 2 setup
* 14/02 Research compatible hardware
* 14/01-12/02 Learning ArduPilot language
* 11/03 - Establish ssh connection for raspi
* Find suitable ground control
* Weld RPi combo with ESC to test propeller
* Install Mission Planer and connect to Drone

|  |  |  |  |
| --- | --- | --- | --- |
| Rpi | | Arduino | |
| Pros:   1. Is a general-purpose computer 2. More suitable to control complicated machine like robots 3. Capable of doing intense calculations 4. Capable of performing multiple complicated tasks 5. Wifi capable | Cons:   1. Expensive 2. Difficult to power using battery pack 3. Require SD card for storage 4. Risk of files corruption and software problems | Pros   1. Is a microcontroller board 2. More suitable of performing repetitive, simple tasks 3. Can be powered using a battery pack 4. Low cost 5. On board storage | Cons   1. Require external hardware to connect to the internet 2. Only one USB port to connect to computer 3. Low memory prone to froze when executing codes |

|  |  |  |  |
| --- | --- | --- | --- |
| Navio2 | | Pixhawk | |
| Pros   1. Run on Linux environment 2. Easy to setup and interact with 3. Can SSH into your drone while its flying 4. Can update firmware wirelessly ( with Wi-Fi ) | Cons   1. Is not optimize for real time application 2. May experience hiccup when run resource heavy scripts 3. Very new and not widely seen in industrial applications | Pros   1. Much faster computational speed 2. More dependable 3. More consistent in performing tasks 4. Designed for real-time applications 5. Dictated computing power for flight control firmware 6. Can be supplemented with external computing power (like Raspberry Pi ) | Cons   1. Complicated to learn 2. Not a simple to switch firmware versions 3. Have to manually setup companion computer 4. Difficult to interact with due to no simple SSH |