# Manual flight using Raspberry pi akshit gandhi June 27, 2016

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#### 1 Tutorial Name

Manual Flight using Raspberry pi

#### 2 Hardware Requirement

Drone with APM2.6 Controller Raspberry Pi B+

### 3 Software Requirement

Mission planner software Moboxterm for Raspberry pi

### 4 Theory and Description

we have connected R pi to Apm through UARTs. we have also connect GPIO of Rpi to INPUT of APM.

so we have two type of communication.

- 1)through UARTS
- 2)through GPIO(one way communication)

we actually get feed back from APM through UART port. we are generating PWM Signal through R pi's GPIO. so we have removed remote(RC control) input from APM.

## 5 Experiment

now, we have one indoor flight in which ,we can control drone through our key board keys.

we have noticed that its very stable and more accurate then remote control.

#### 6 Exercise

whole python code for raspberry pi is given on github. https://github.com/eYSIP-2016/Autonomous-Drone