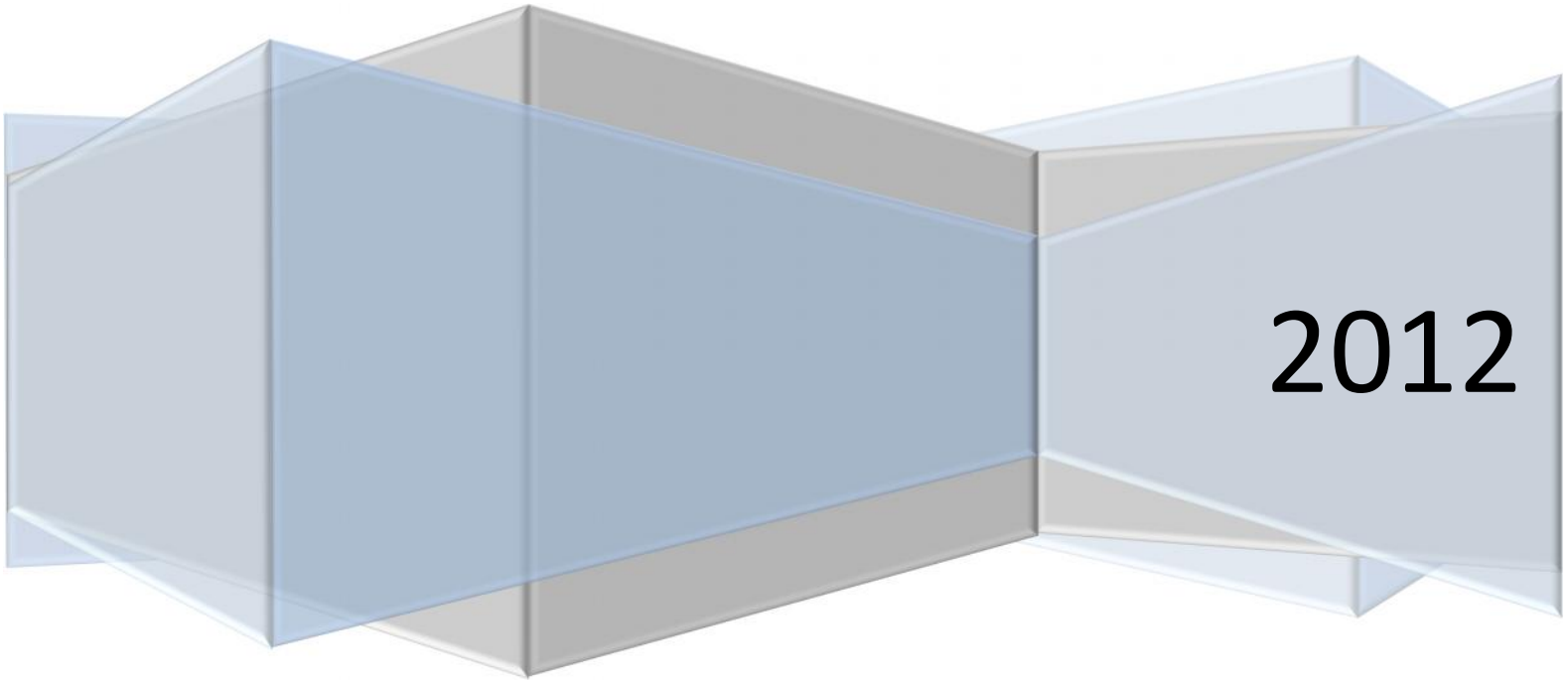
Montgomery County Community College

Preparing and flying the airborne mission computer – a pictorial document

Research Document – G09

EGR299 Students and Engineering Faculty



2012

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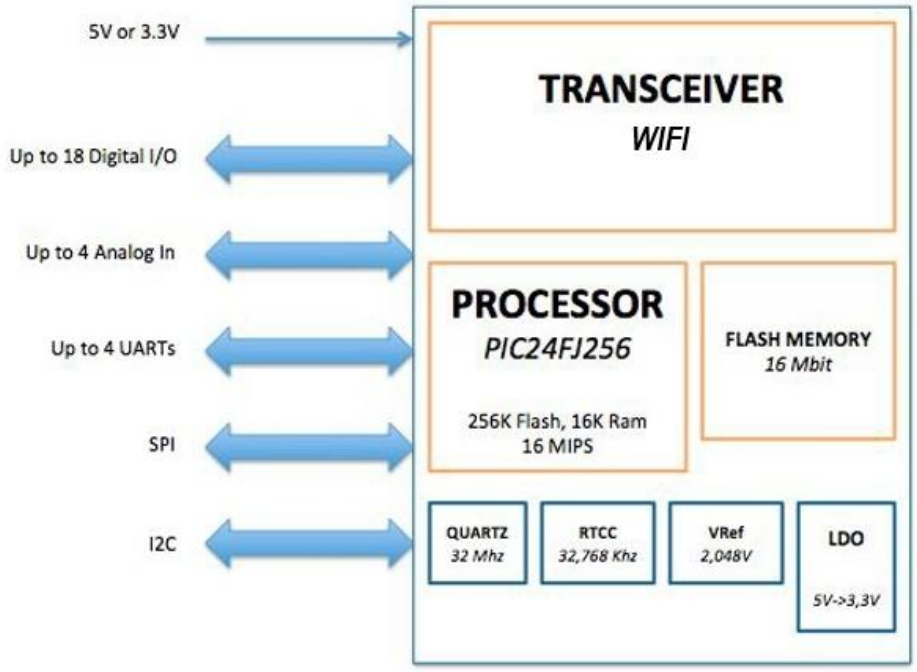
Introduction

This is a pictorial document explaining how we prepared and flew the Flyport airborne mission computer. The pink box that housed the Flyport airborne mission computer was never intended to be part of our delivery. Two of these boxes were used in actual flying and, they were very practical because of the easy open/close latch and the semi-opaque top to visually ensure that the Flyport's LEDs were fully activated for the missions.



Credits

The EGR299 class students

Aaron Wilz
Brian Jerardi
Daniel Rowe
Jacob Simon
Jason Cassel
Kevin Healy
Michael Marino
Michelle Gavan
Scot Kantner
William Fellmeth

The engineering faculty

Andrew Ippolito
Bill Brownlowe
Jean-Jacques Reymond

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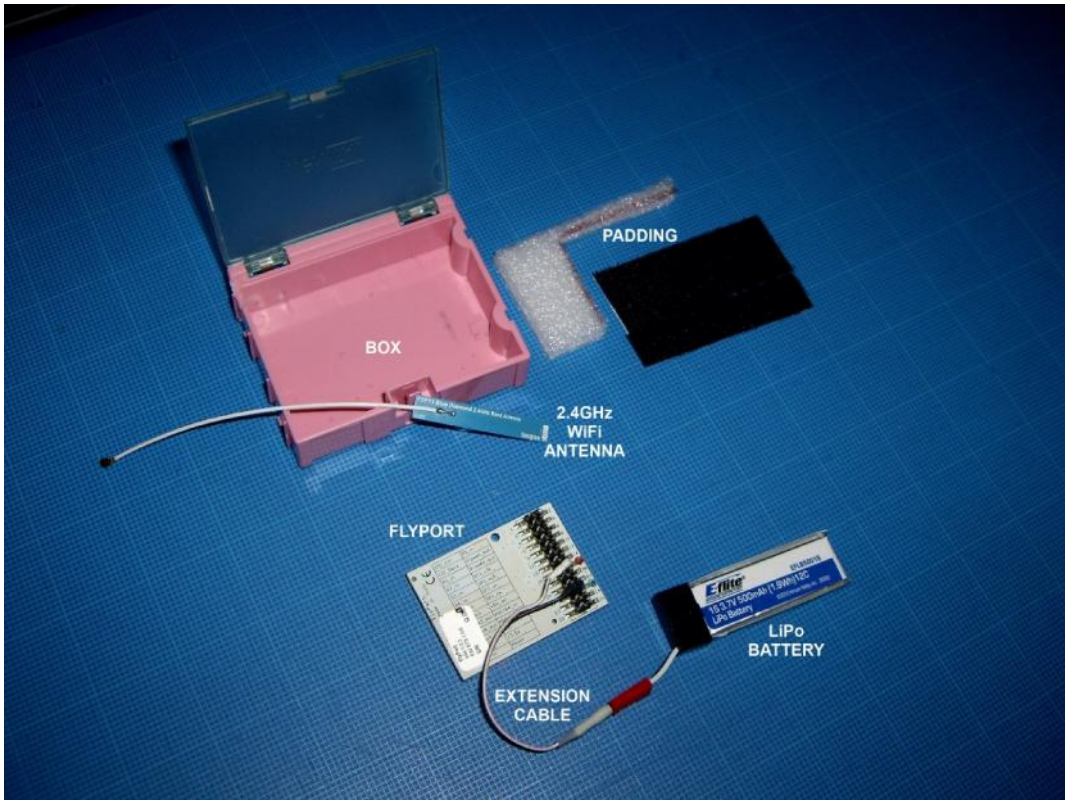
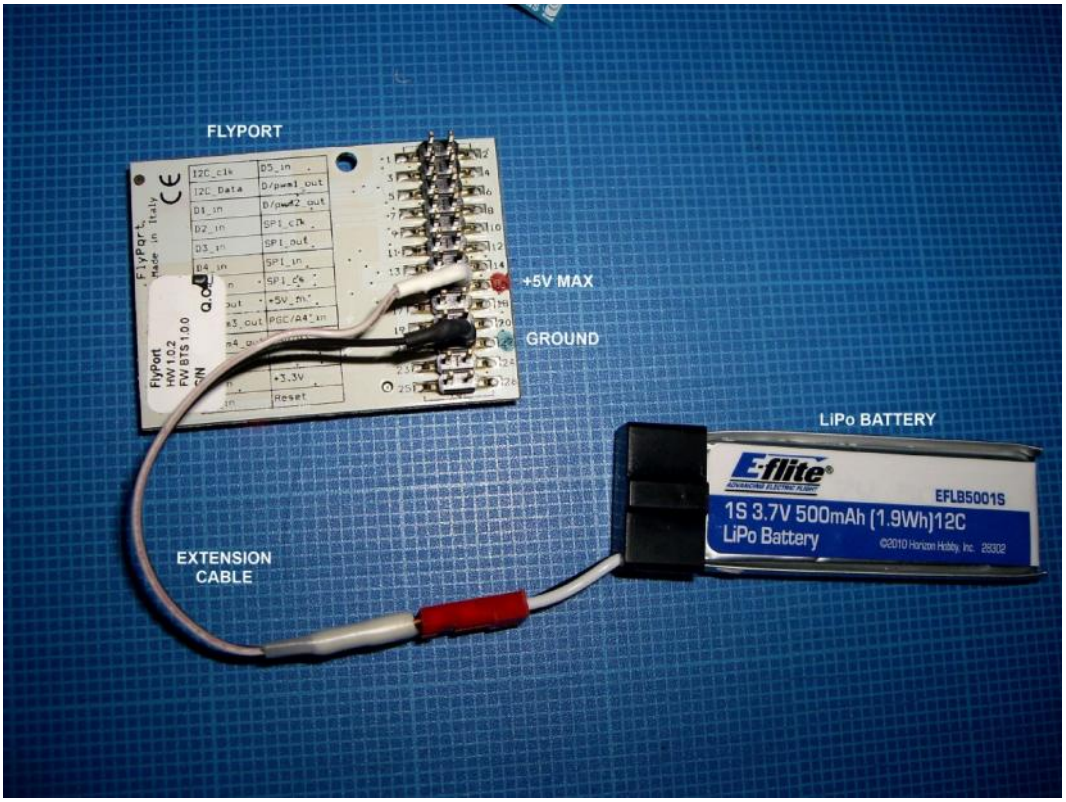
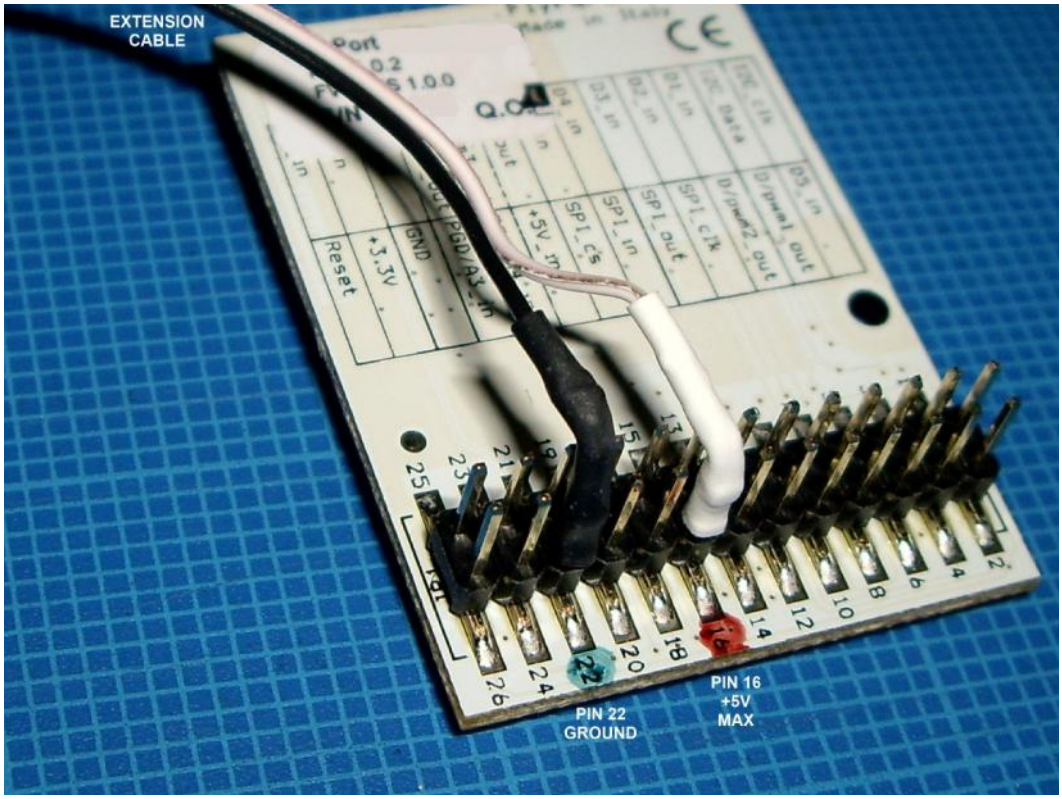
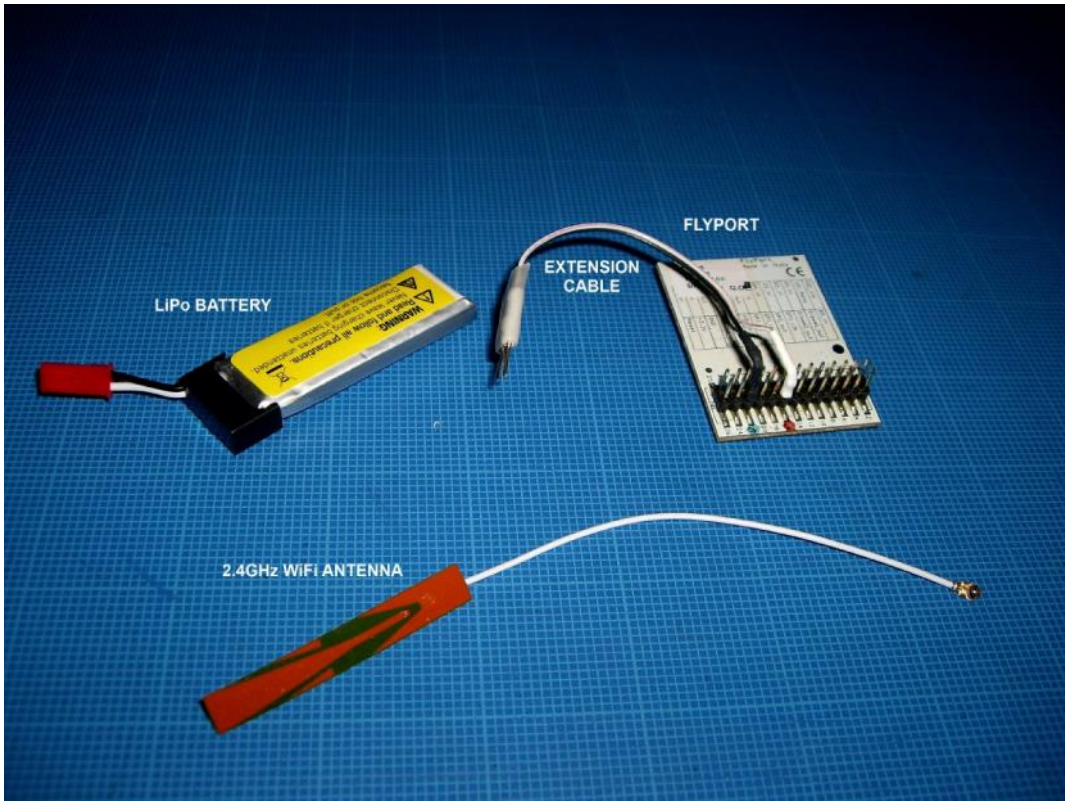
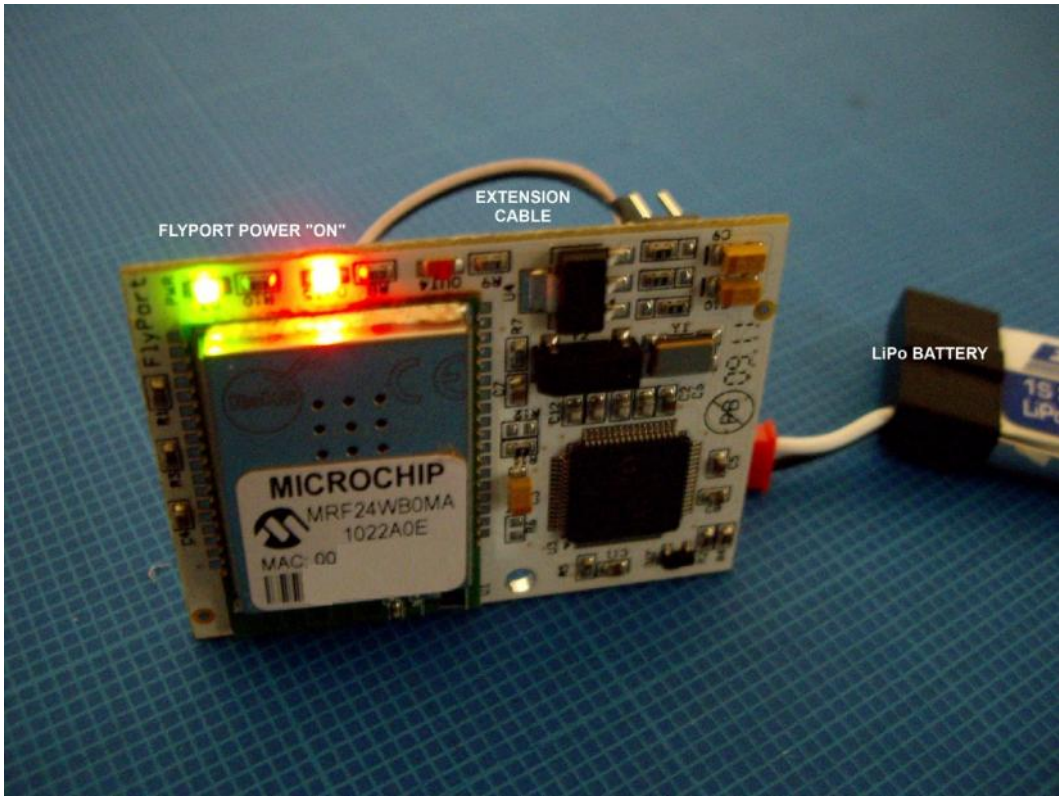

PADDING
BOX
2.4GHz
WiFi
ANTENNA
FLYPORT
LiPo
BATTERY
EXTENSION
CABLE


FLYPORT
+5V MAX
GROUND
LiPo BATTERY
EFLB5001S
1S 3.7V 500mAh (1.9Wh)12C
LiPo Battery
EXTENSION
CABLE


EXTENSION
CABLE
PIN 22
GROUND
PIN 16
+5V
MAX

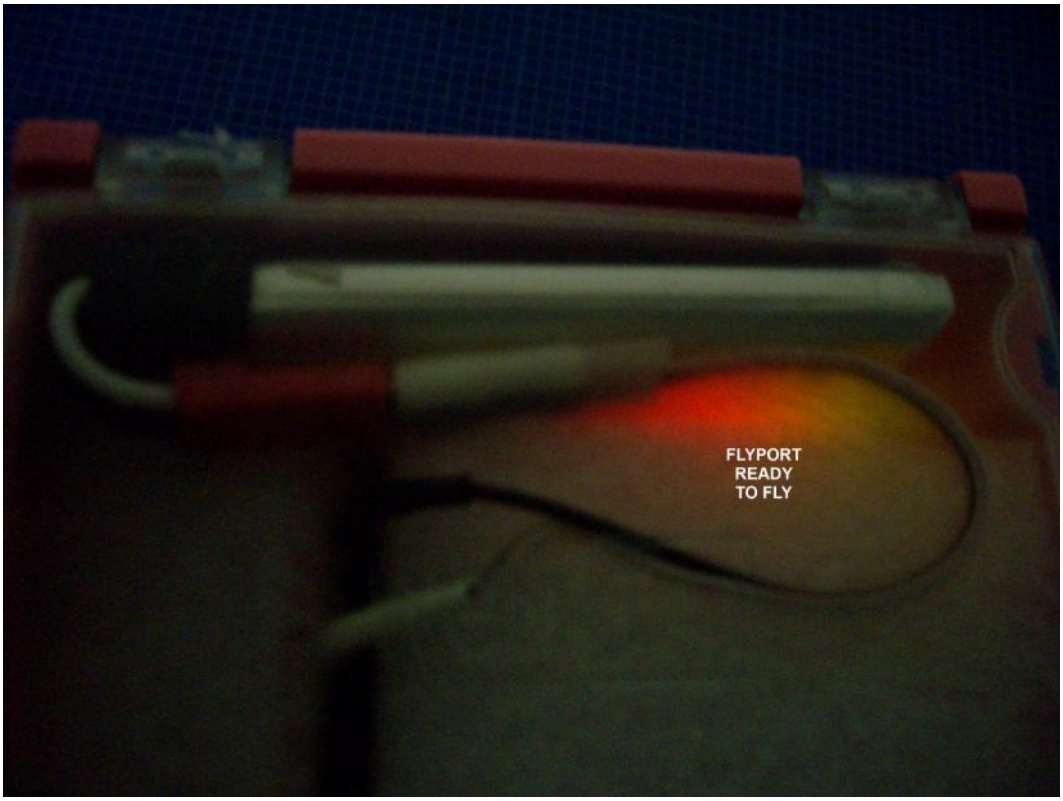

FLYPORT
EXTENSION
CABLE
LiPo BATTERY
2.4GHz WiFi ANTENNA

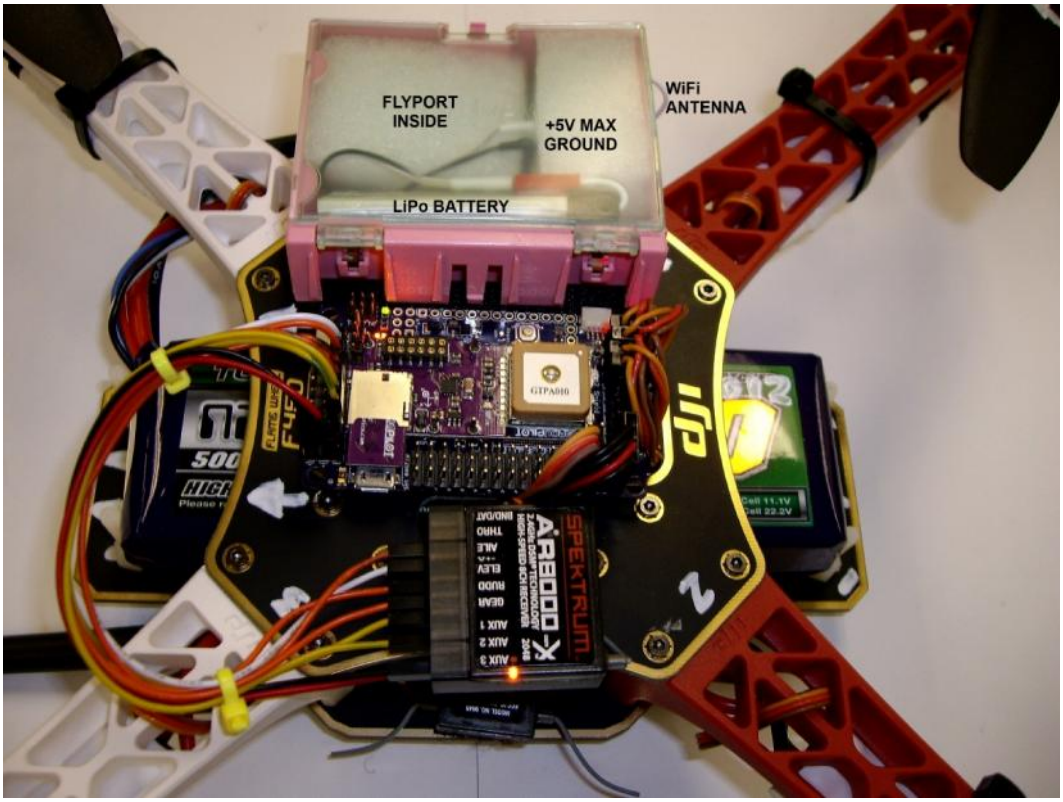

LiPo BATTERY
FLYPORT
BELOW
2.4GHz
WiFi
ANTENNA

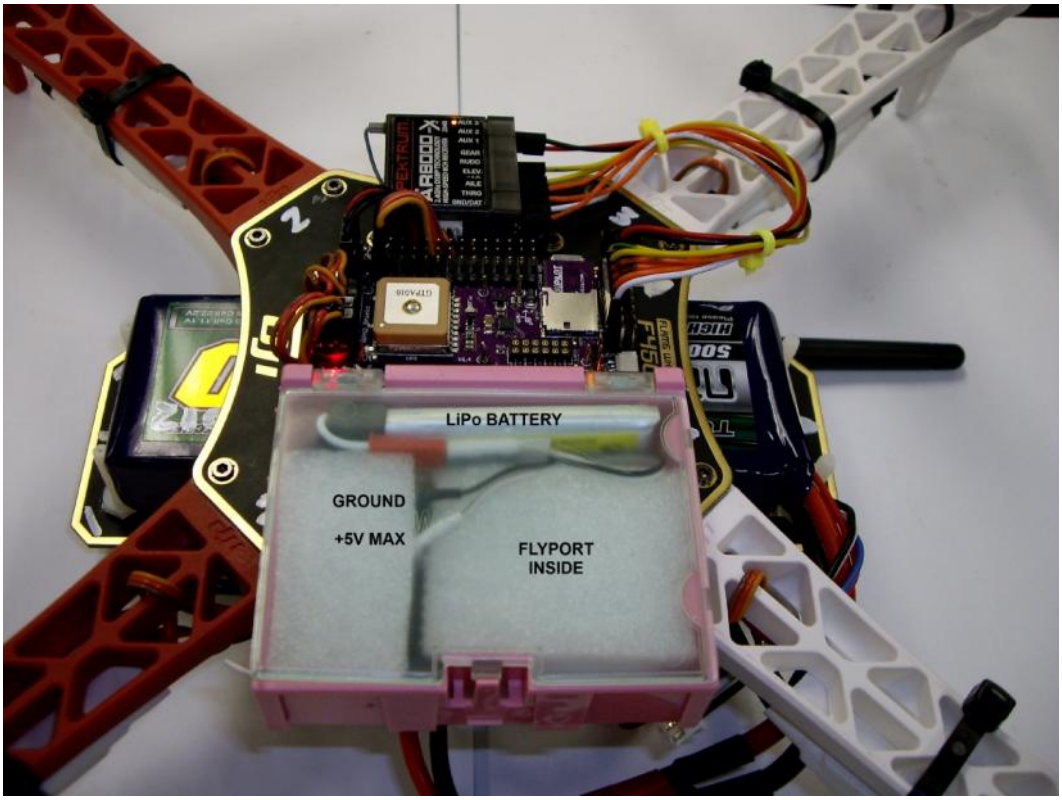

EXTENSION
CABLE
FLYPORT POWER "ON"
LiPo BATTERY
MICROCHIP
MRF24WB0MA
1022A0E


LiPo BATTERY
EXTENSION CABLE
FLYPORT BELOW


FLYPORT INSIDE
FXP73 Blue Diamond 2.4GHz Band Antenna
1122
taoglas
OUTSIDE 2.4GHz ANTENNA

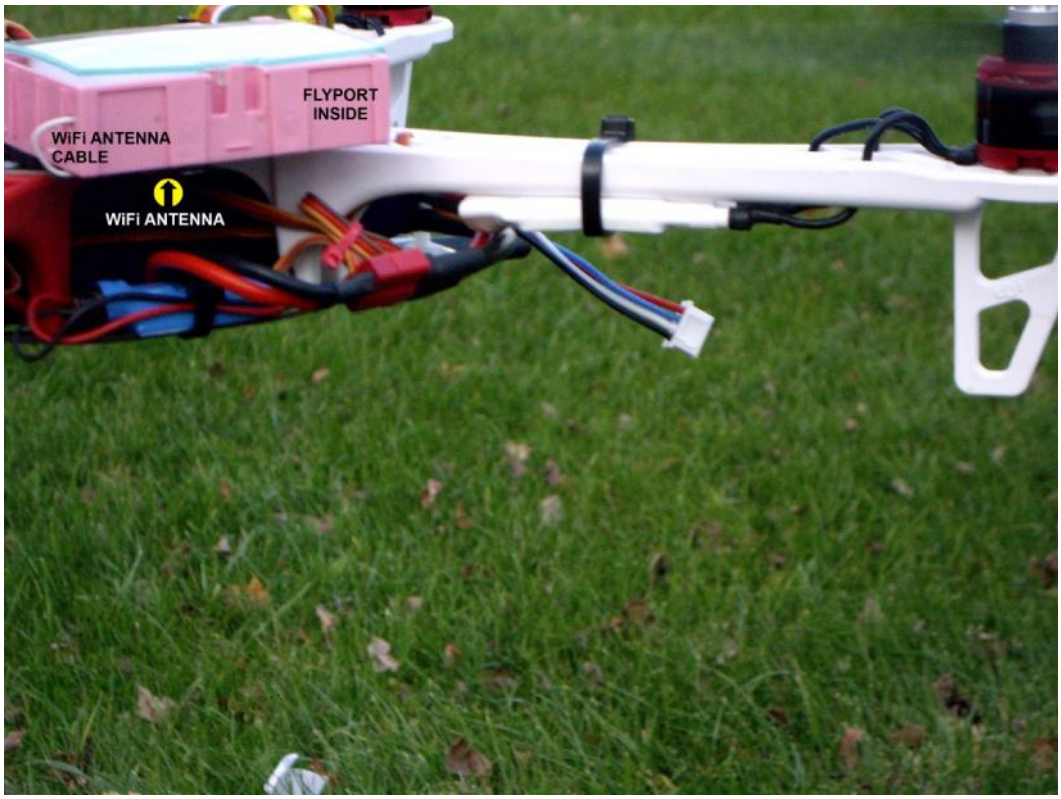

FLYPORT
READY
TO FLY


FLYPORT
INSIDE
+5V MAX
GROUND
WiFi
ANTENNA
LiPo BATTERY
SPEKTRUM
AR8000-X


LiPo BATTERY
GROUND
+5V MAX
FLYPORT
INSIDE


FLYPORT
INSIDE


FLYPORT
INSIDE


FLYPORT
INSIDE
WiFi ANTENNA
CABLE
WiFi ANTENNA


#5
TAKING OFF - FLYPORT ACTIVATED


TAKING OFF - FLYPORT ACTIVATED
#5


LEAVING FOR MISSION - FLYPORT ACTIVATED


RETURNING FROM MISSION - FLYPORT ACTIVATED


LANDING - FLYPORT ACTIVATED


LANDING - FLYPORT ACTIVATED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