Quadcopter build

**Specifications:**

1. Frame
   - Centre Plate – Carbon fiber re-enforced with balsa
   - Arms – Aluminum ‘U’ Channel
   - Landing Gear – High density insulation foam and cable ties
   - Fasteners – M2 Stainless steel nuts and bolts

2. Power system
   - Motors – Brushless DC Motors
   - Electronic Speed Controller – 6 Amp
   - Propellers – 5”x3”
   - Battery – Lithium Polymer 2s 30c 7.4v 1080mAh

3. Controller and sensors
   - Arduino Mega v2.5 with ATMEGA2560
   - MPU6050 6 axis gyro (IMU)
   - HMC5883L 3-axis digital magnetometer (Compass)
   - MS5611-01BA01 Barometric pressure sensor (Alt measurement)
   - Mediatek GPS external unit
   - 915 MHz telemetry unit
   - Power monitor module (Voltage Sensor)

4. 2.4 GHz Radio System (Used for arming and switching modes)
Motor to motor distance = 11 inches