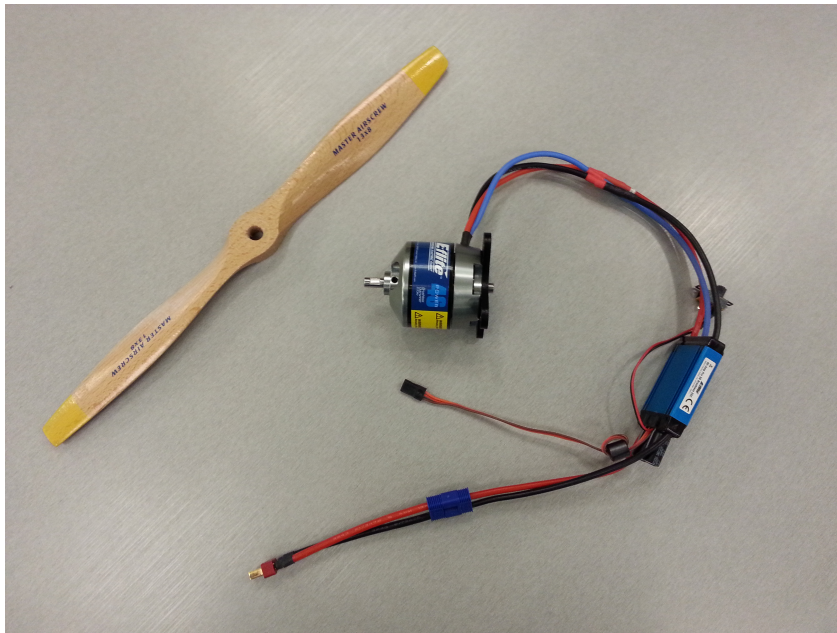
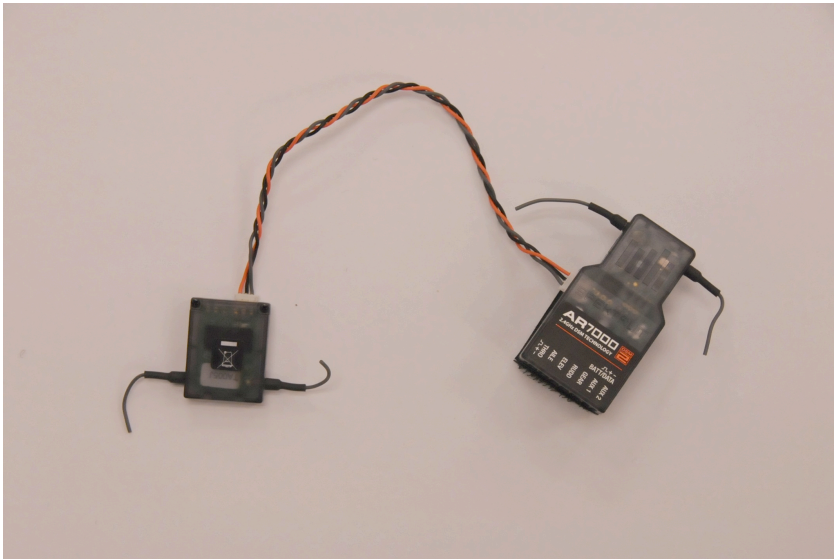


Propeller / Motor / ESC



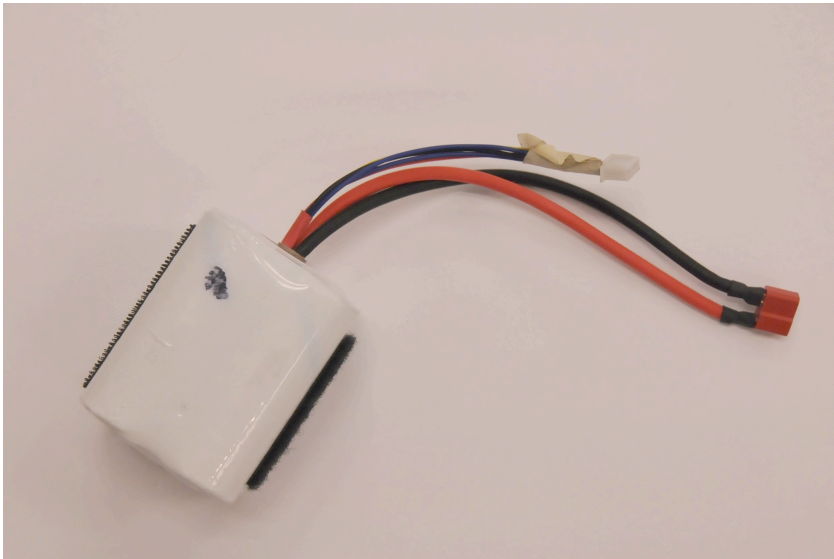
- Propeller: Master Airscrew 13x8
 - 13" diameter with 8° pitch
 - Connects to motor with provided prop adapter
- Motor: E-flite Power 46
 - Connects to speed controller
 - Attached to firewall using provided x-mount (Connect motor to mount with screws/loctite, connect mount to firewall with screws/washers/blind nuts)
- Electronic Speed Controller / Battery Eliminator Circuit: E-flite 60 Amp Pro
 - ESC : Controls radio input to motor
 - ESC : Connects to flight battery, motor, and throttle setting on flight receiver
 - BEC : Steps down voltage of flight battery to power servos, flight receiver, and DAQ
 - BEC: Connect output to Y-cable (and then to DAQ and flight receiver)

Flight Receiver



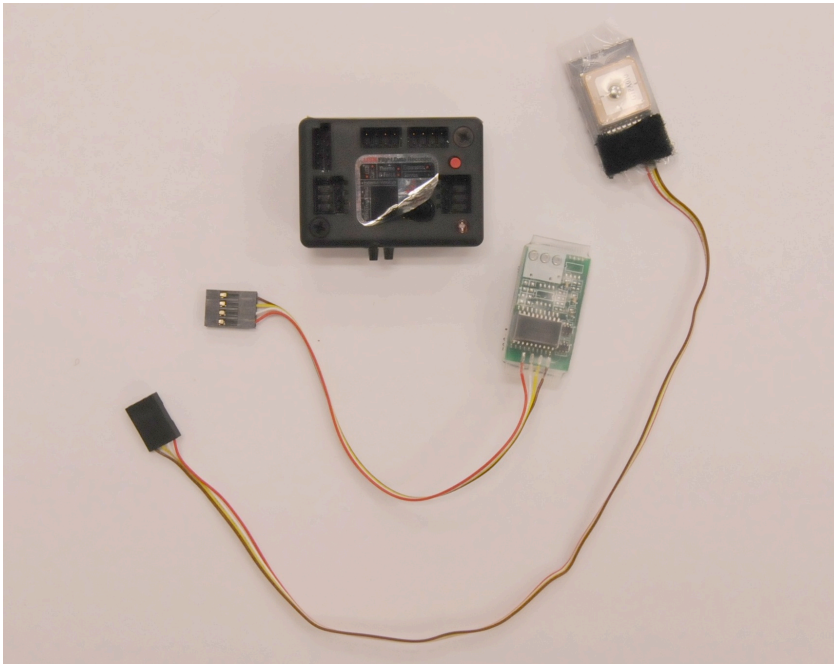
- Spektrum AR7
 - 7 Channel
 - Throttle, Rudder, Aileron, Elevator, and 3 extra
 - Paired with equivalent Spektrum Radio
 - Additional antenna is for redundancy in case radio signal is lost; mount in different plane (horizontal vs vertical, etc.) than receiver
 - Power goes to bottom three horizontal pins
 - Connects to BEC (via Y-cable)

Flight Battery



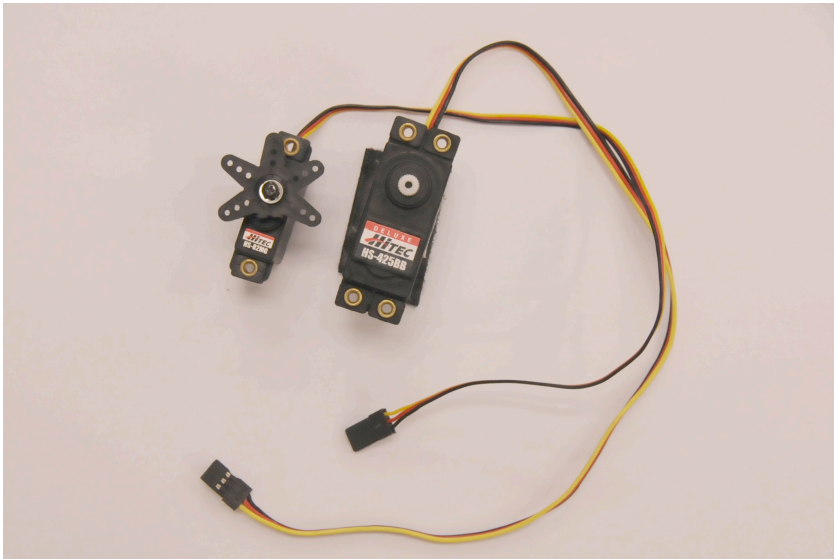
- Custom battery from Radical RC
 - LiFe 4s A123 Cell Battery
 - Powers all components during flights, no other battery in plane
 - TAs exclusively handle charging (blue cable / white pin used for charging, not needed during flights)
 - Shared amongst all groups on flight days depending on flight readiness
 - Each has both sides of Velcro for use in any plane
 - Connects to speed controller

DAQ



- DAQ and associated sensors from Eagle Tree Systems
 - Captures at 10 Hz
 - Records airspeed, groundspeed, GPS coordinates and time stamp, time from start, two components of acceleration, and altitude
 - Must be accessible to TAs following flight for data download
 - Connects to BEC (via Y-cable)

Servos



- Two sizes available
 - Small and Large
 - Typically from Hitec, but equivalent if sold out
 - Small
 - Typically, Hitec HS-81 or Hitec HS-82MG
 - Large
 - Typically, Hitec HS-425BB
 - Servo extension wire is easily used if mounted far from flight receiver
 - May have as many of either kind as desired in plane
 - Connect to flight receiver on appropriate channel