



Quadcopter Parts

Purchase Order Form

ENGR 7A: Introduction to Engineering

Outline

- PO Form Sections and Deadline
- Required Components Checklist
 - Motor and Propeller Configurations
- Optional Components Checklist
- First Come, First Serve

Purchase Order Form

Due by Friday of Week 7

Nov 9, 2018 @ 11:59 PM

Upload PDF File to EEE Dropbox.

File Name:

PO_TEAMNAME_LabDAY_LabTIME.pdf

e.g. PO_SuperQuad_Wed_1pm.pdf

PURCHASE ORDER FORM

The Henry Samueli School of Engineering

Upload your purchase order (PO) for quadcopter parts on EEE Dropbox, Due 11/9/2014

One PO per team. Parts will be given to you after submitting the PO. The props and motors will be given on a first come first served basis.

Requested By:*

Team Name

*Captain:

*E-Mail:

Delivery Address:*

*Building Name (or Abbreviation)

409 or 421

*Room #

Date of Request:

Lab
Instructor
Name:*

Lab Section: *Day & Time

Account Name:*

ENGR 7A

Account*	Fund*	Sub	Project	% (If split funding)	Amount	Accounting Review
ENGR 7A	56123	03	7A	100%	\$0.00	
				0%	\$0.00	

Complete all sections for your team.

Do not change.

Quantity*	Unit	Company*	Item Description*	Catalog #*	Unit Price*	Estimated Extended Price*
4	ea	MOTOR MAKE	MOTOR MAKE AND KV RATING	XXXXXXX	\$1.00	\$4.00
1	ea	DJI	NAZA FLIGHT CONTROLLER		\$2.00	\$2.00
16	ea	MCMaster-CARR	25mm Male-Female Standoffs		\$3.00	\$48.00
						\$0.00
						\$0.00
						\$0.00
I Need My Order Delivered By This Date:*				Subtotal		\$54.00
				*Tax rate:	7.75%	\$4.19
TOTAL ORDER PRICE						\$58.19

Use prices from Student_Parts_List links on Course Website.

Other external parts must be OK'ed by TA first and ordered by you.

Required Components Checklist

- 4 Motors
- 4 Propellers (2 CW + 2 CCW)
- NAZA Flight Controller
- Fly Sky Transmitter & Receiver
- 4 Electronic Speed Controllers (ESCs)
- 3000 mAh battery & Wiring harness
- Voltage Regulator

Motor and Propeller Configurations

Motor Rating **KV = RPM/volt**

→ Higher KV has higher RPM & lower torque

→ Lower torque requires smaller propeller

Sunnysky 1400 KV
8.0" Propellers

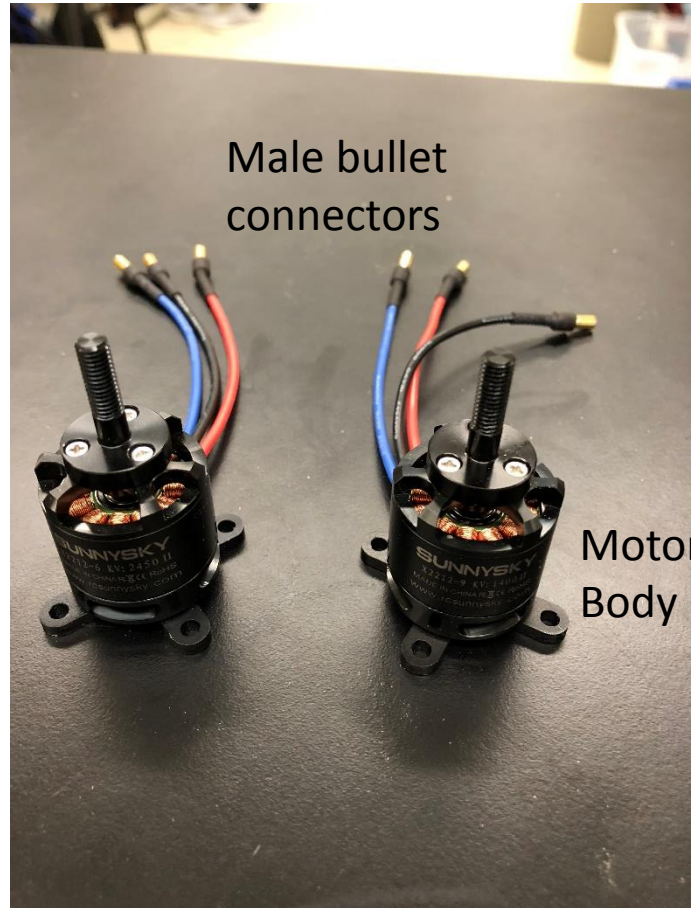
Sunnysky 2450 KV
5.0" or 6.0" Propellers



Sunnysky 1400 & 2450 KV Motors



Motor Mount and
propeller adapter



Male bullet
connectors

Motor
Body

NAZA Flight Controller

Versatile Unit
(AKA Voltage Regulator)

NOTE:

Bullet connectors not included, but are required

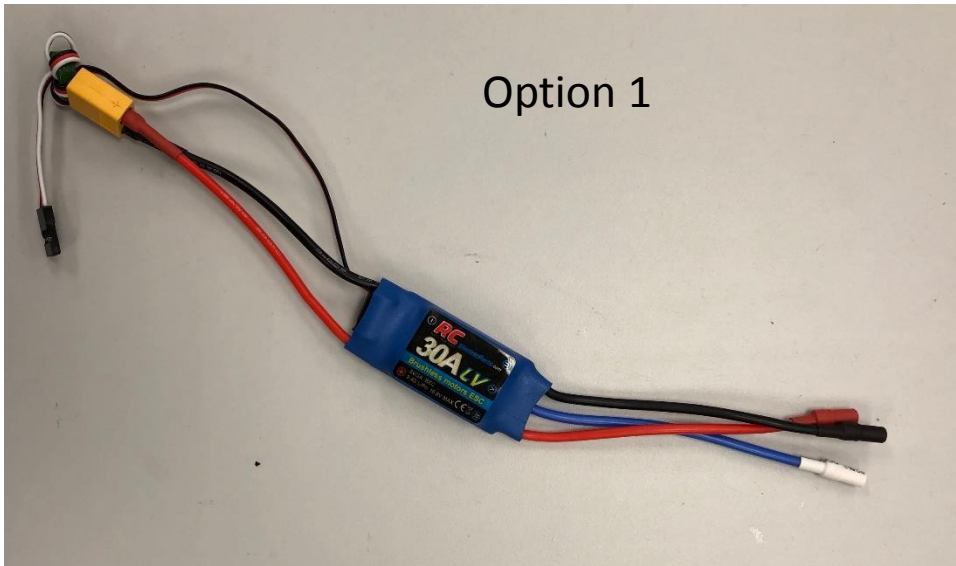
LED Micro-USB
Connector

Main Flight
Controller

Transmitter and Receiver

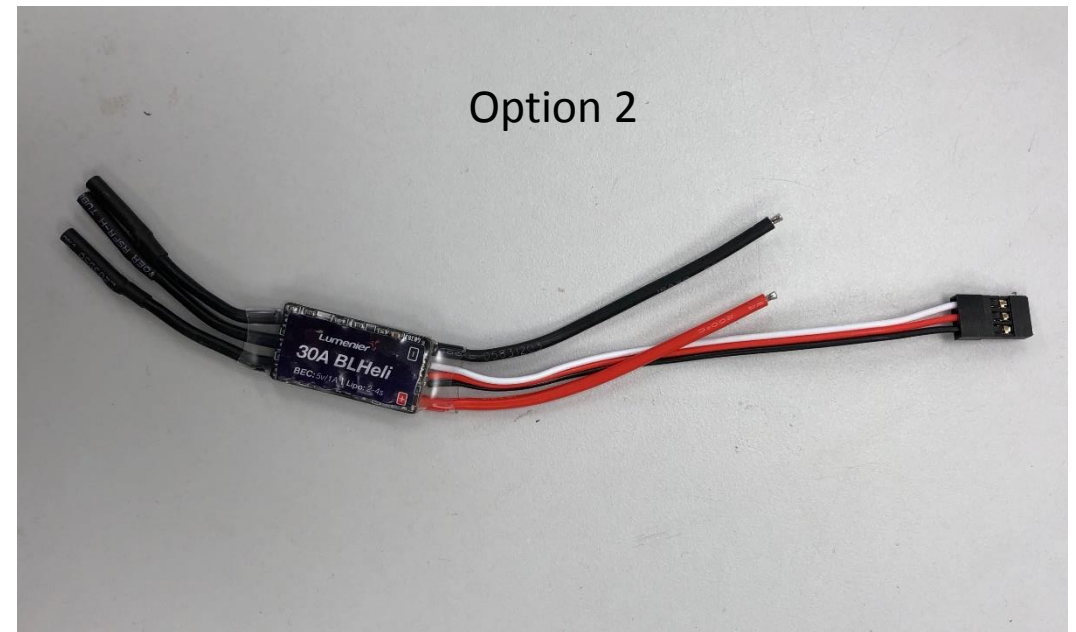


Electronic Speed Controller



NOTE:

Bullet connectors not included, but required for option 2



Battery & Wiring Harness



Zippy 3000 mAh 3-cell LiPo Battery

6 – to – 1 Wiring Harness

6 Sets of **Power / **Ground** Wires**
with Female Bullet Connectors

Connects to:

4 Electronic Speed Controllers &
NAZA Voltage Regulator

1 Spare Set

Optional Components Checklist

Standoffs

- Height
- M-F or F-F



Bullet Connectors

- Male
- Female



Standoffs (Optional)

Use to add space between sheets of material.

6 mm M-F 15 mm F-F 15 mm M-F 25 mm M-F



Bullet Connectors



Male Bullet Connectors

Required For:

- Option 2 ESCs Power/Ground Wires
- NAZA Voltage Regulator Power/Ground Wires

Female Bullet Connectors (Optional)

For Replacement on Electronics As Needed

FIRST COME, FIRST SERVE

Parts will be distributed in the order that the PO Forms are submitted to Canvas.
Limited Quantity of New Supplies.

NEW Supply	Sunnysky 1400 KV	Sunnysky 2450 KV
# Quads	35	35

New Supplies: 70 Quads

Class Total: 52 Quads

Spare & Replacement Parts from Used Supplies.

Optional Materials

