(Ben) Safety & Warranty

Don’t kill anyone

Don’t fly with camera without prior knowledge of how to fly a quadcopter

(Rick) Controls – Component Identification

Required prerequisites for operation

ArduPilot driven

Landing Pad & Camera

Claw or other lifting mechanism

(Optional for right now) Sonar

Description of controls

Tuning IR Camera control system

(Zac) General Operation

Are you ready to fly

Round trip time < Battery flight time

You’re running a fully charged battery

No obstructions – IR camera or props

check the parts (list of parts to check)

check flight path

Safe Flight Planning

Don’t fly in hurricanes

Don’t fly through buildings

Don’t fly at low altitude

Flight plan tips

Altitude – above people’s heads

Time of day – low traffic times

A good, functional quadcopter

Weight of package should impact your battery flight time – think about it Einstein

(Ben) Storage and Transportation

Don’t leave in the rain

Take the props off and pull the battery when moving

Charging your batteries for max longevity

(Hunter) Maintenance and Troubleshooting

More information about charging your batteries – LiPo battery charging good practice

Pre-Flight part checklist and schedule

My quadcopter doesn’t fly

Check APM version, make sure not HELI\_FRAME

Check battery and connections

Check package

Call us

IR camera not working (indicator displays “NO LEDs”)

Check indicator

Check package blocking view

Check landing pad for power, LEDs not blocked

Check connections, for loose wires, orientation

Watch for leprechauns

Call us

Quad missing landing pad

Check GPS on quad/ sonar if attached working correctly

Tune using Mission Planner/MailBird for dummies that doesn’t exist yet

All else fails, watch for leprechauns, then call Honda.

(Zac) Additional Information – Accessories, Replacement parts, warranty

I2C Splice – our part or 3DR’s part

Claw or

New camera board

Use with sonar

(Hugh) Specifications – How to build an appropriate MailBird

Don’t use a parrot drone. That didn’t work for Lee & Co.

[www.ecalc.ch/xcoptercalc.php?ecalc&lang=en](http://www.ecalc.ch/xcoptercalc.php?ecalc&lang=en) – lifting capacity and flight time

This is how we decide your quad “works”

Recommended quadcopter specifications

Our quadcopter

Alternative lifting mechanisms

Our claw setup

Mission Planner – APM 2.6

(Rick) Assembly – Hardware and Software

Hardware

IR Camera PCB with indicator

Attach via I2C to your board

Splicing instructions

Package Pickup Mechanism

Claw instructions

Landing Pad

Sonar (optional for right now)

Software

Put in the CD

Load our version of Arduino.exe

How to plug in Arduino to your computer

How to configure serial ports

Open and load firmware onto quadcopter

Install Mission Planner

How to plan a flight

Tuning the controller for your custom build

(Nobody) Index & Quick Reference