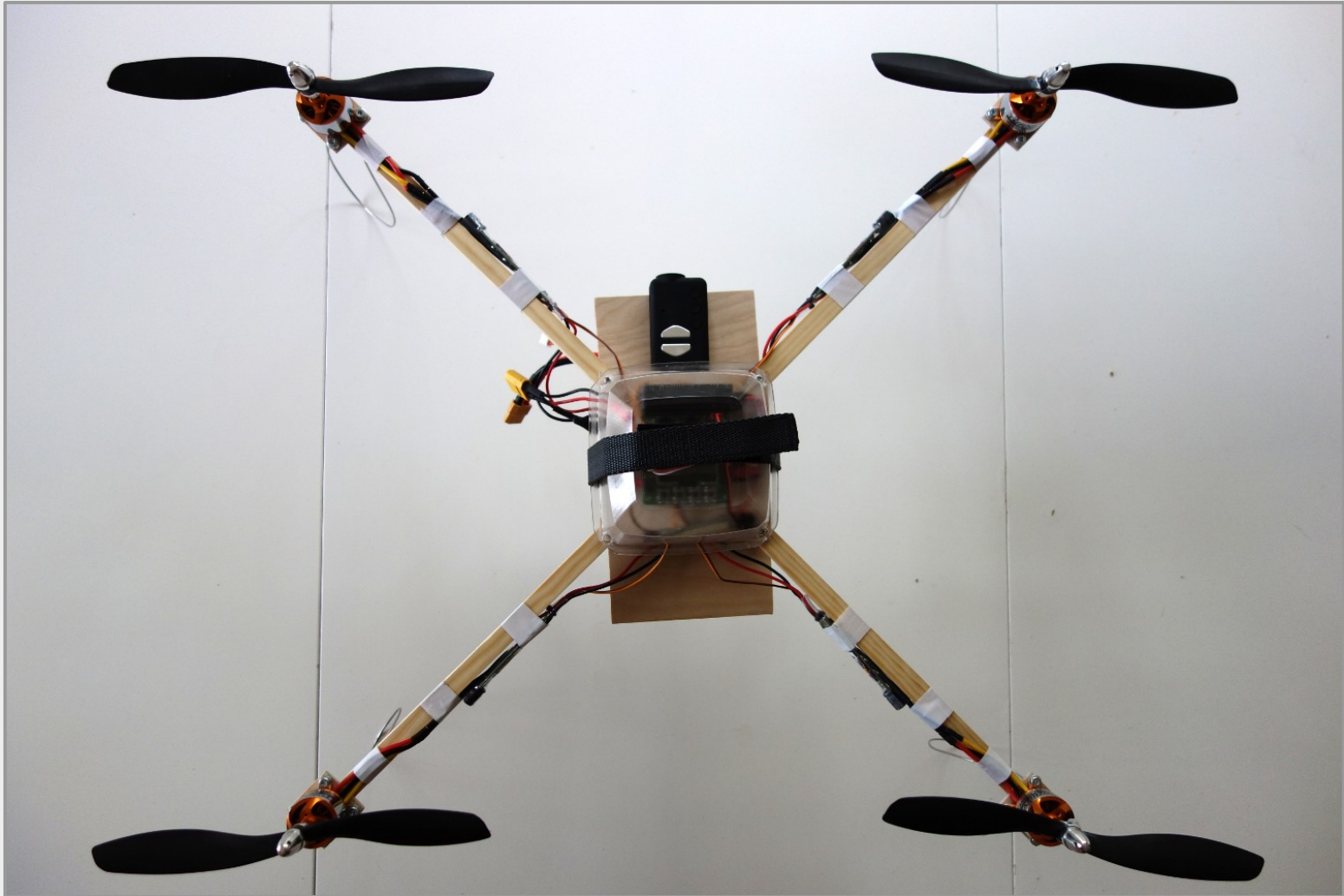


My Homemade Quadcopter



Tore Sæstad
17th June, 2015

Outline

- How I started
- My quadcopters
- Parts and details
- Where to buy
- Video

Slik bygger du ditt eget quadkopter – del 1



Skrevet av
Erik Solheim

🕒 13. oktober 2011

218 kommentarer

Med litt tålmodighet, litt fingerferdighet og litt penger til overs kan du bygge deg et leketøy som gir timesvis med moro, spennende utfordringer, kanskje noen fine bilder og sansynligvis noen nye venner. Miljøet for dem som driver med flygende multirotorfarkoster er voksende.



Quad-hvaforno?

<https://nrkbeta.no/2011/10/13/slik-bygger-du-ditt-eget-quadkopter-del-1/>

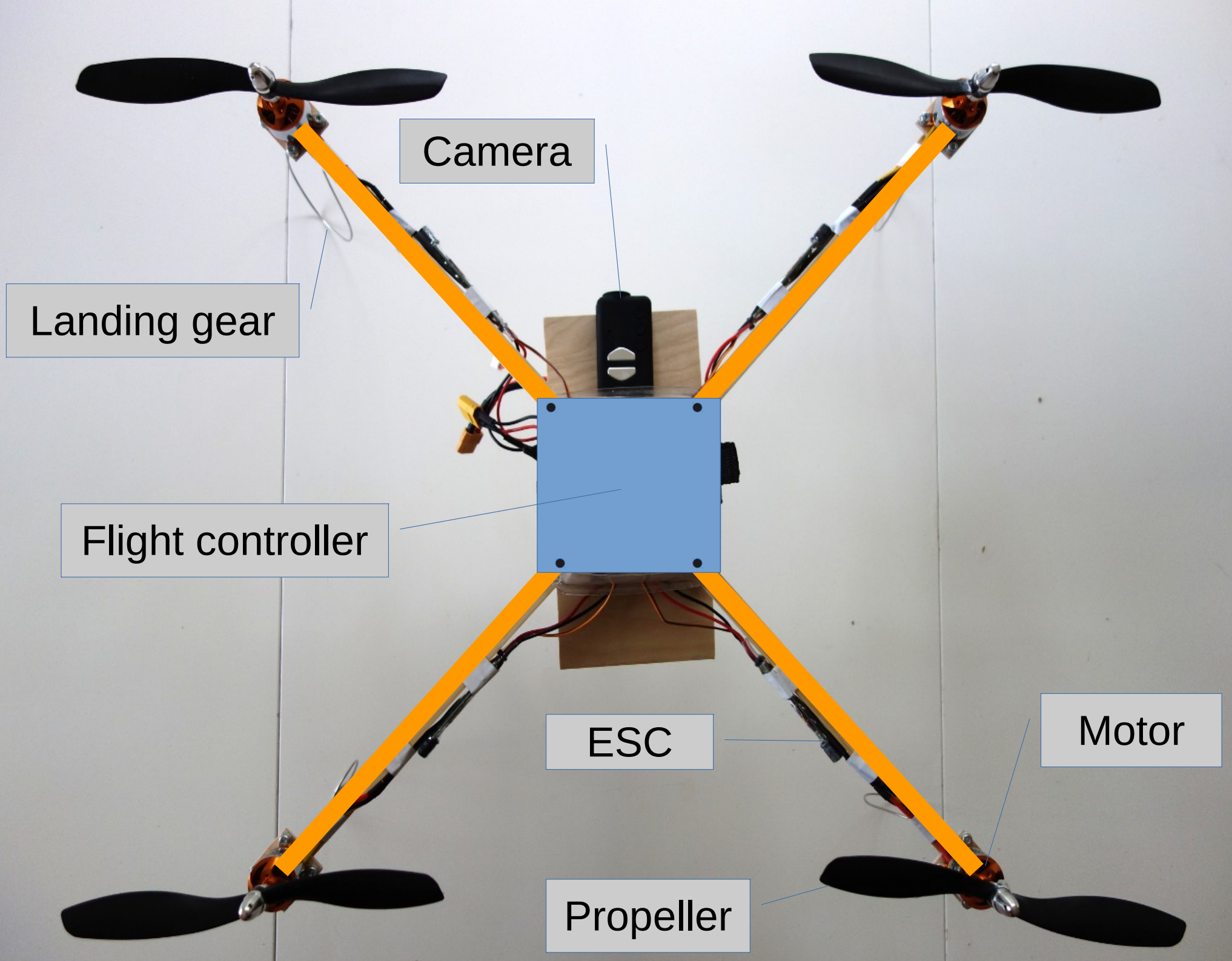
<https://nrkbeta.no/2011/11/08/slik-bygger-du-ditt-eget-quadkopter-%E2%80%93-del-2/>

Quadcopter v1



Quadcopter v2





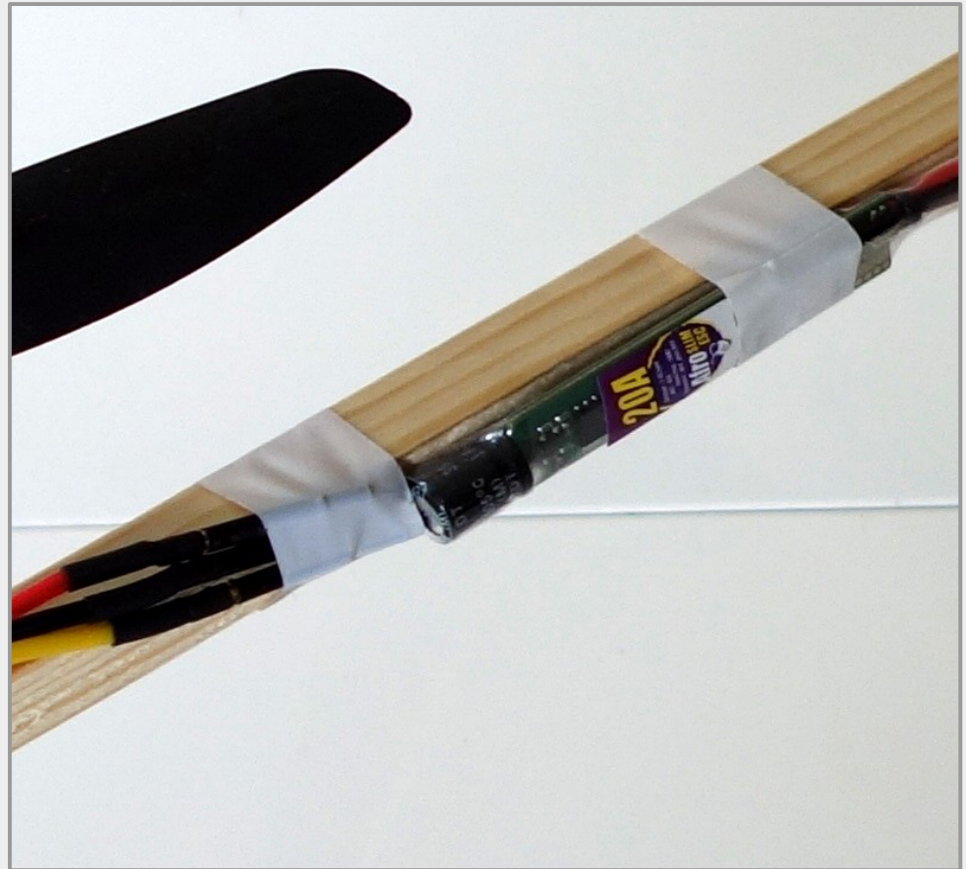
Motors and Propellers

- 4 x Turnigy D2830/11 motors
 - 1000 kv
- 4 x GAUI propellers
 - 8x4.5
 - 8" diameter
 - 4.5" pitch
 - 2 CW and 2CCW



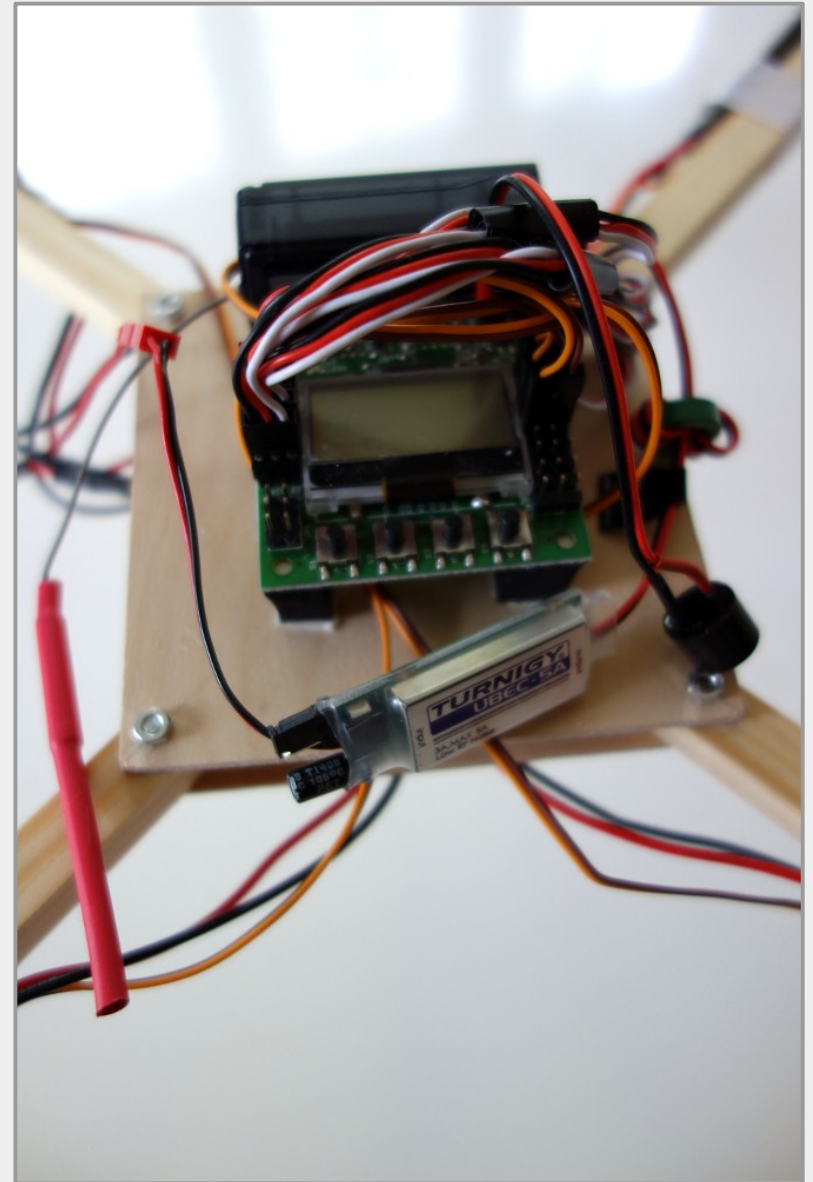
Electronic Speed Controller

- 4 x Afro Slim 20A ESC
- Controlling motor's speed
- Refresh rate: 400 Hz
- Atmel ATmega8



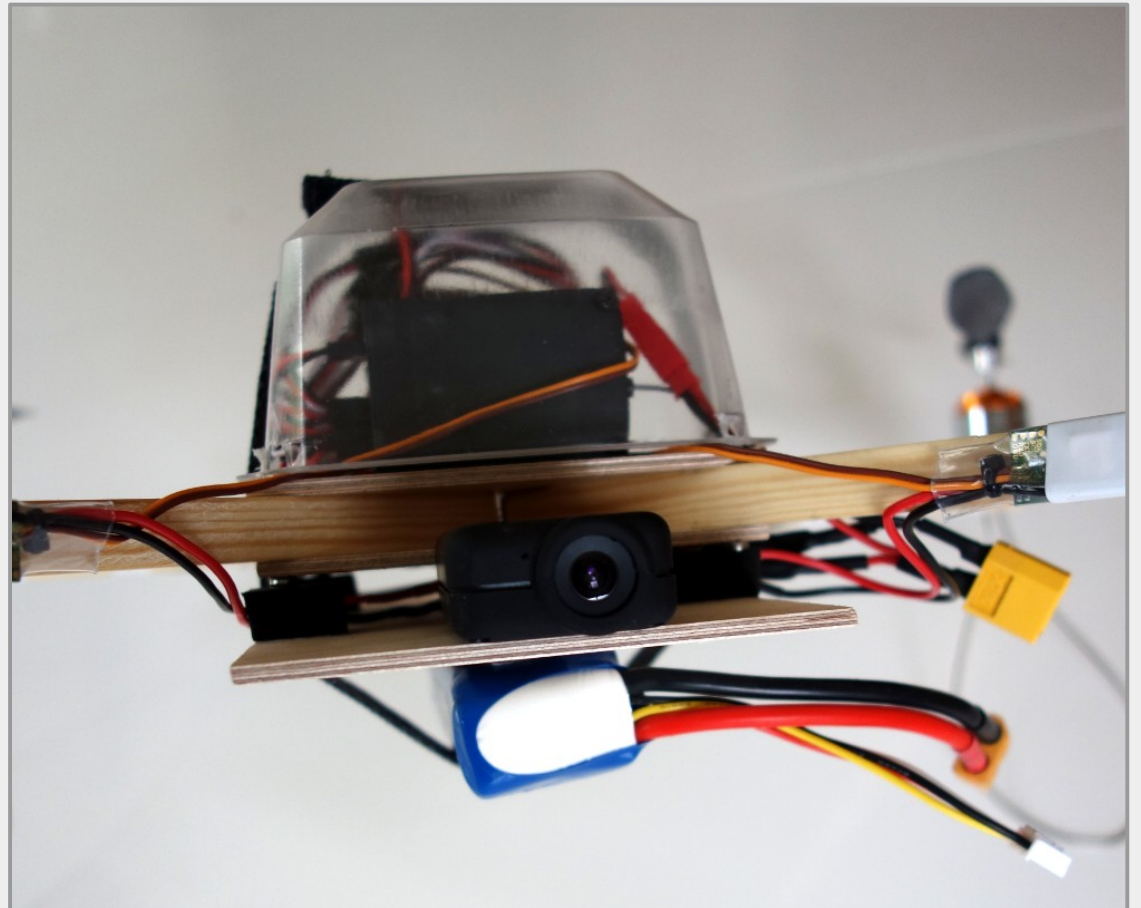
Flight Controller

- KK2.0 flight controller
 - 3 accelerometers
 - 3 gyroscopes
 - Atmel ATmega324 PA
 - LCD and buttons
 - Made by Rolf R. Bakke
- Receiver
- 5A UBEC



Camera and Battery

- Mobius actioncamera
 - 1080 p
 - 39 g
 - A/V out
- ZIPPY flightmax
 - 2800 mAh LiPo
 - 3 cell 11,1 V
- Battery alarm
- Vibration dampening



Radio

- Turnigy 9x Transmitter
 - 9 channels
 - 2.4 GHz system
 - Atmel ATmega64
 - Open source firmware supported: er9x



Details

- Weight: 930 g
- Motor to motor: 60 cm
- Flight time: ~15 min
- Lift capacity: > 500 g
- Cost: ~170\$ for quadcopter
 - ~100\$ for radio, 2 batteries and charger
 - ~70\$ for camera

Where to buy

- Hobbyking.com
 - Where I ordered most of my parts
 - Located in China
 - Cheap and all you need
 - 1 – 4 weeks with cheapest shipping
- Maxbo
 - 12 mm pine molding
- Smallsizes
 - 3 mm plywood
- Biltema, Clas Ohlson



Video