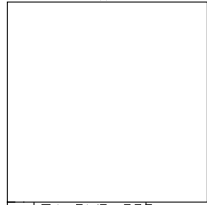
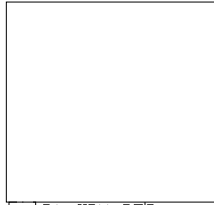


Sheet: PWR



File: pwr.sch

Sheet: MCU



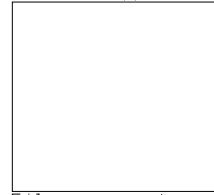
File: mcu.sch

Sheet: Sensors



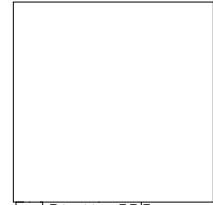
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Sheet: CONN



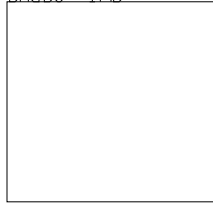
File: conn.sch

Sheet: UI



File: ui.sch

Sheet: IMU



File: imu.sch

2009-11-28: Niklas Kannenberg <kannenberg@quadrofly.com>
2009-11-28: Kolja Mieh <mieh@quadrofly.com>
Quadrofly.com

File: qf_mainboard.sch

Sheet: /

Title: QF Mainboard

Size: A4 Date: 4 dec 2009

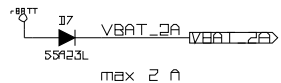
Rev: 1

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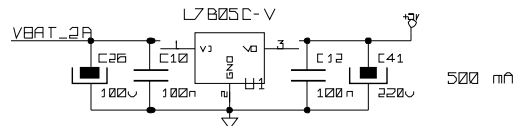
[d: 1/7

7..14 V Input from Battery
 expected output current noted

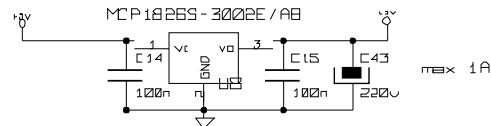
Main Power Supply



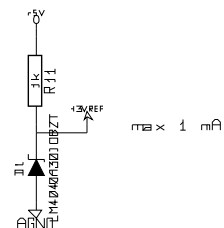
MCU, Onboard Headers



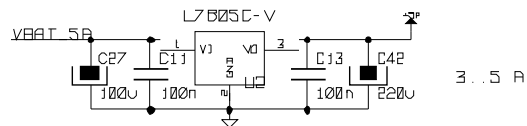
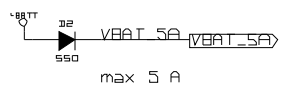
Sensors, I2C Onboard Headers



AD Reference (MCU ADC, EPOT1)

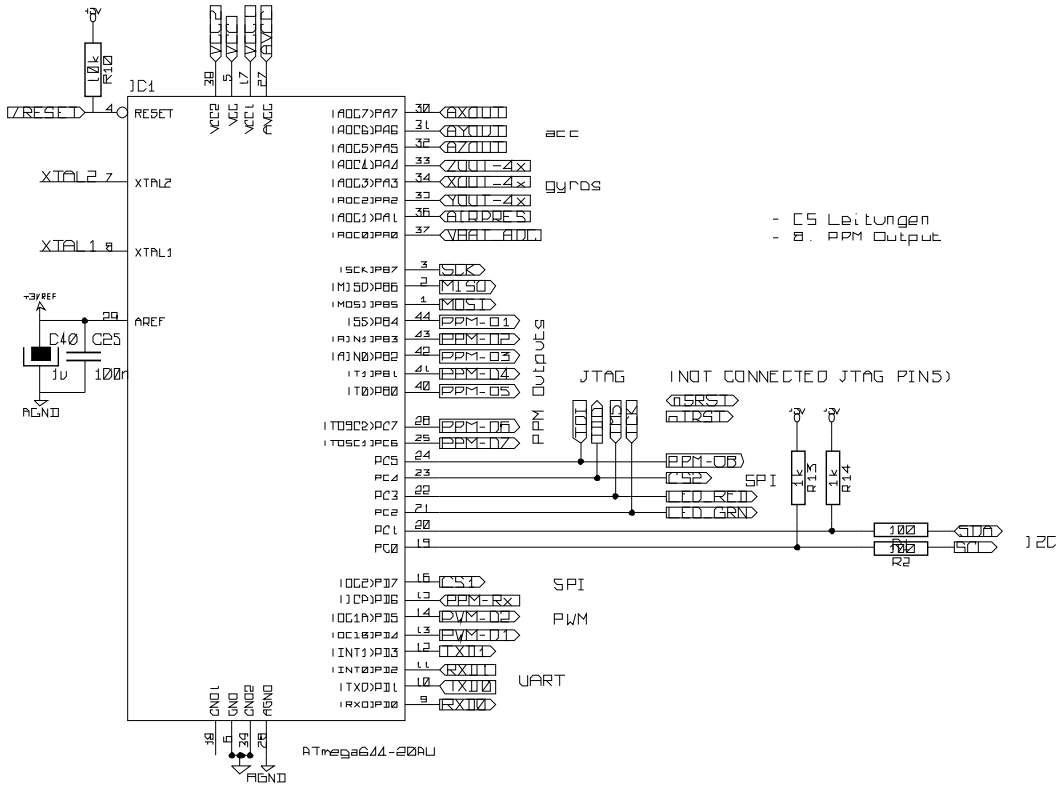
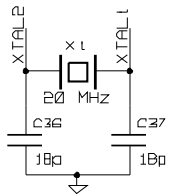
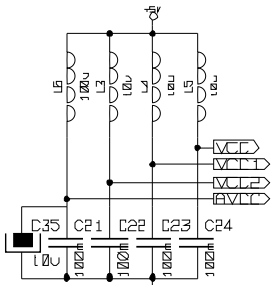


Optional Servo Supply
 (Otherwise fed via Speed Control)



2009-11-28: Niklas Kannenberg <kannenberg@quadrofly.com>	
2009-11-28: Kolja Mieh] <mieh]@quadrofly.com>	
Quadrofly.com	
File: pwr.sch	
Sheet: /PWR/	
Title: Power Supply	
Size: A4	Date: 4 dec 2009
KiCad E.D.A. EE Schema 12000216-final)	Rev: 1
	[d: 7/7

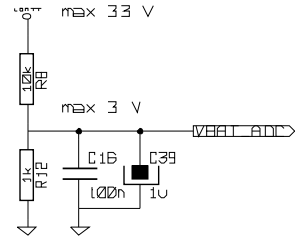
MCU PWR Supply



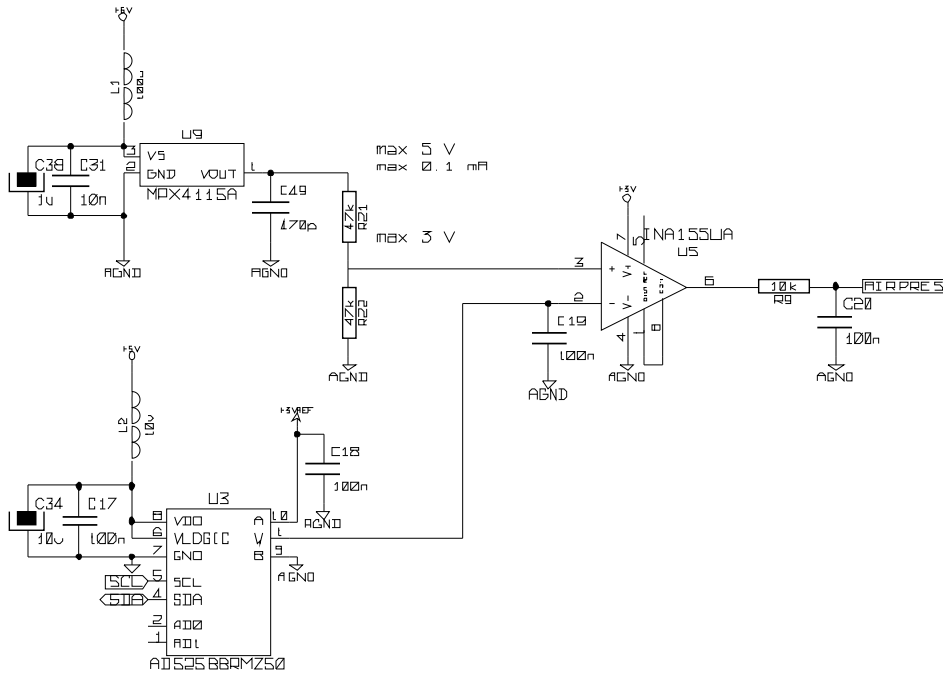
- C5 Leitungen
- B. PPM Output

2009-11-28: Niklas Kannenberg <kannenberg@quadrofly.com>	
2009-11-28: Kolja Miehle <miehle@quadrofly.com>	
Quadrofly.com	
File: mcu.sch	
Sheet: /MCU/	
Title: MCU (incl. External Wiring)	
Size: A4	Date: 4 dec 2009
KiCad E.D.A. EE Schema 120090216-final)	Rev: 1 [d: 3/7

VBAT

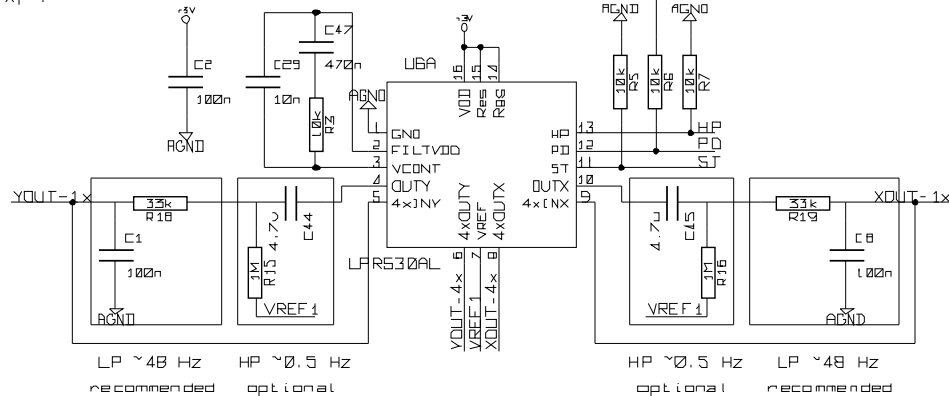


Air Pressure

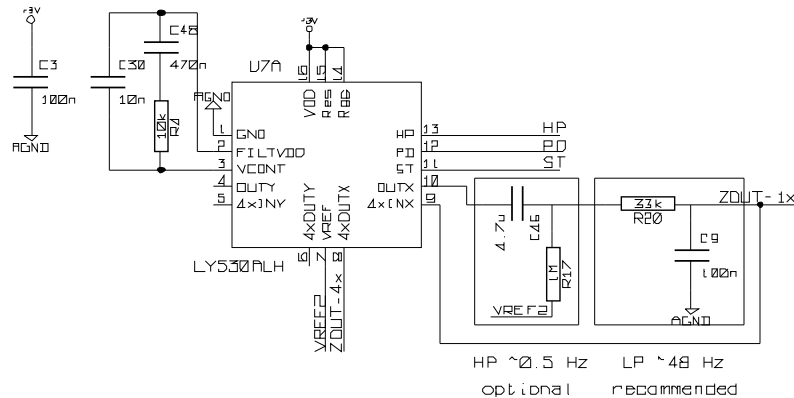


2009-11-28: Niklas Kannenberg <kannenberg@quadrofly.com>	
2009-11-28: Kolja Mieh] <mieh]@quadrofly.com>	
Quadrofly.com	
File: sensors.sch	
Sheet: /Sensors/	
Title: Sensors	
Size: A4	Date: 4 dec 2009
KiCad E.D.A. EE Schema 120090216-final)	Rev: 1
	[d: 6/7

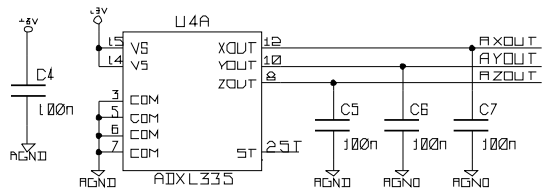
pitch and roll gyros
X, Y



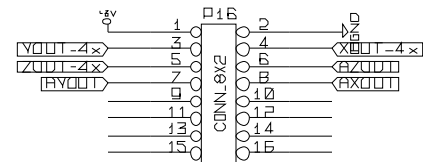
yaw gyro
Z



triple-axis accelerometer
X, Y, Z



IMU Connection



2009-11-28: Niklas Kannenberg <kannenberg@quadrofly.com>
2009-11-28: Kolja Mieh <mieh@quadrofly.com>
Quadrofly.com

File: imu.sch
Sheet: 1/1

Title: 6 DOF IMU

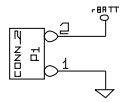
Size: A4 Date: 4 dec 2009

Rev: 1

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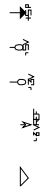
[d: 2/7

Battery Connector



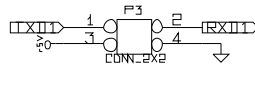
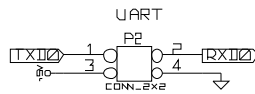
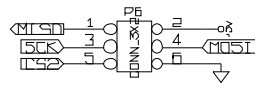
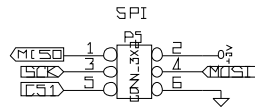
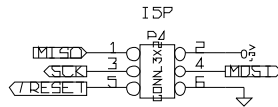
Extension Plug

PB3, PB2, PD5, PD4



Was ist hiervon sinnvoll?

Bus Connections

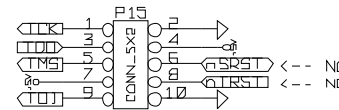


2.54 mm pin headers

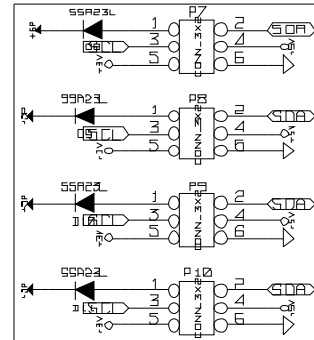
Our Pin Convention:
Signals, 5 V, 3 V, GND

All connections are realized as On-Board Pin Headers in a row.

AVR JTAG



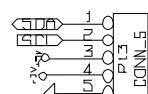
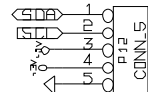
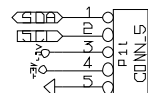
I2C



Speed Control

Sensors

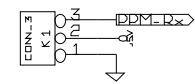
optional



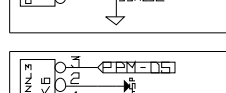
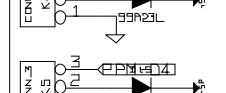
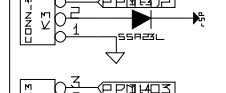
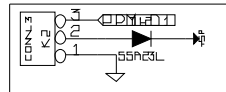
diodes are optional

PPM I/O

PPM Input (IRx Signal)

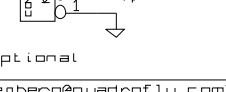
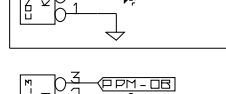
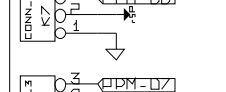
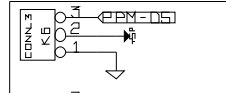


PPM Outputs



Speed Control

CAM Servos



2009-11-28: Niklas Kannenberg <kannenberg@quadrofly.com>

2009-11-28: Katja Miehler <miehler@quadrofly.com>

Quadrofly.com

File: conn.sch

Sheet: /CONN/

Title: Connectivity

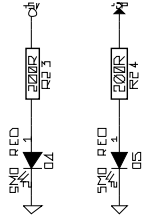
Size: A4 Date: 4 dec 2009

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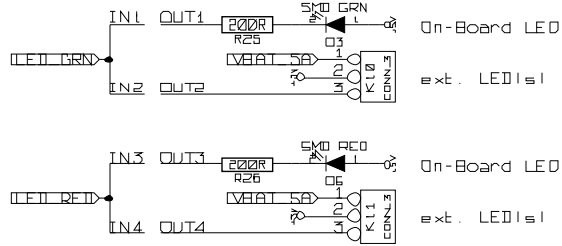
Rev: 1

[id: 5/7

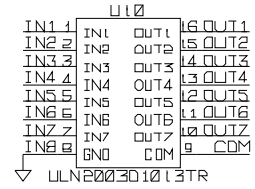
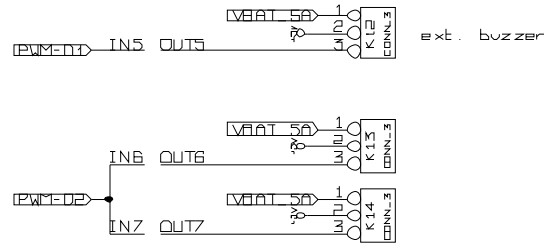
Optional Power LEDs



Status Indication



Switching Outputs



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 2009-11-28: Kolja Mieh] <mieh]@quadrofly.com>
 Quadrofly.com

File: ui.sch
 Sheet: /UI/

Title: User Interface

Size: A4	Date: 4 dec 2009	Rev: 1
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