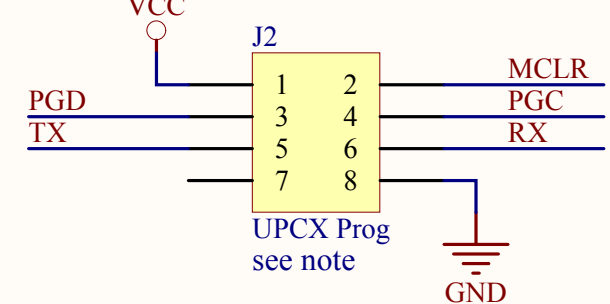
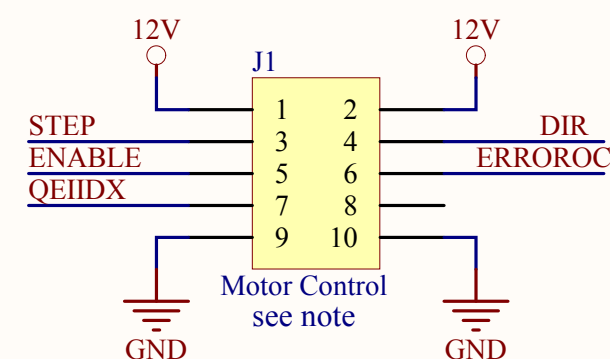
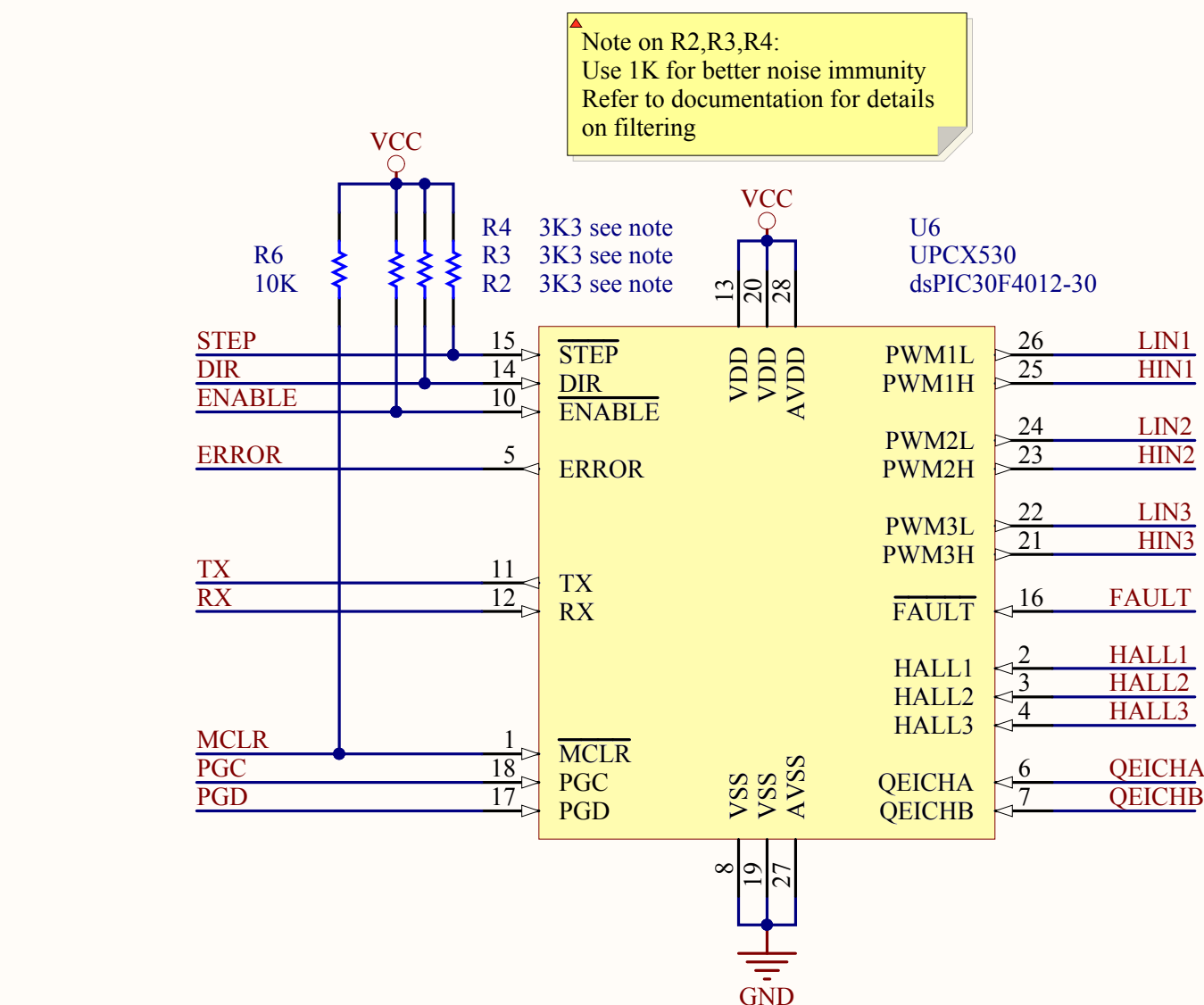
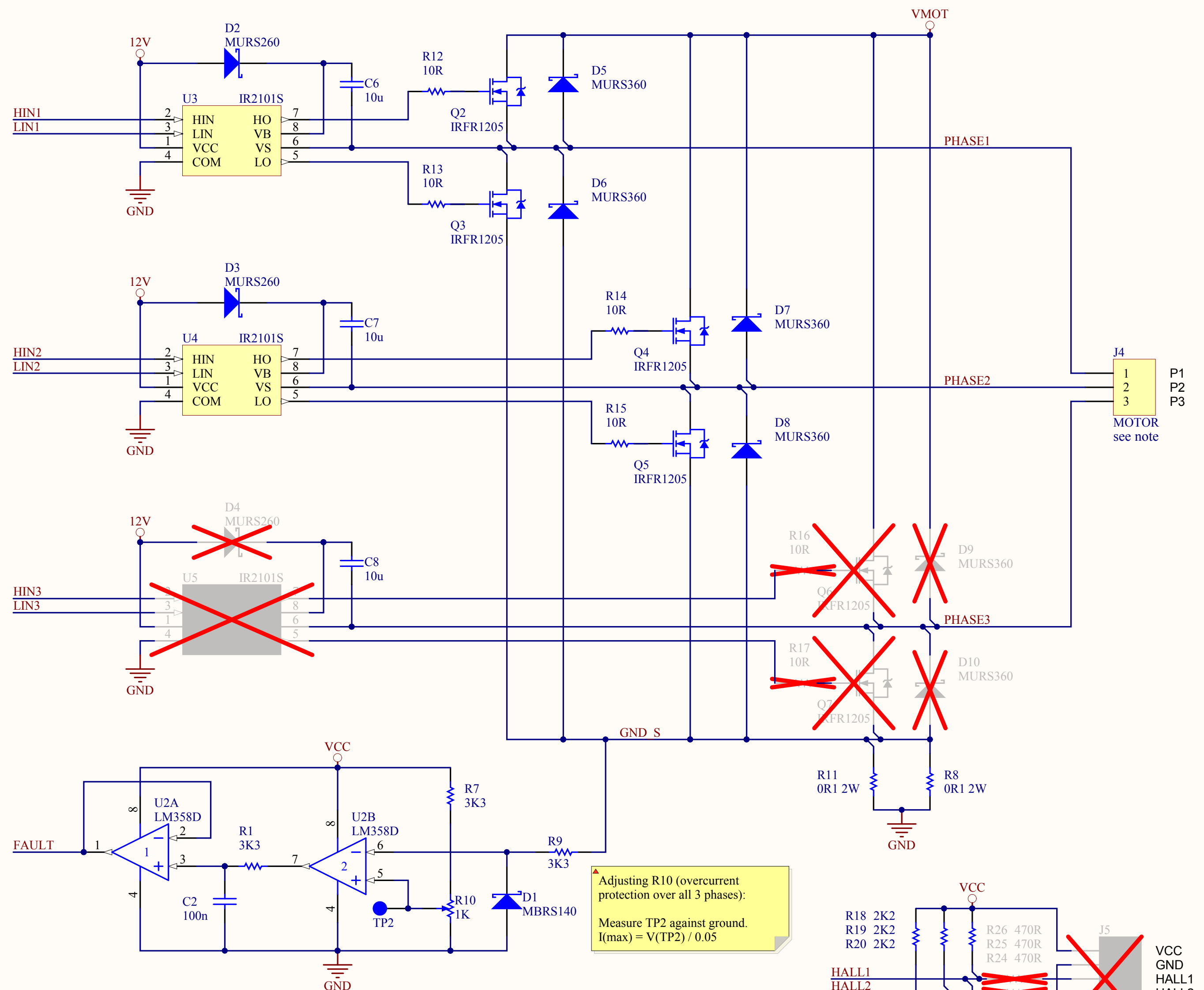
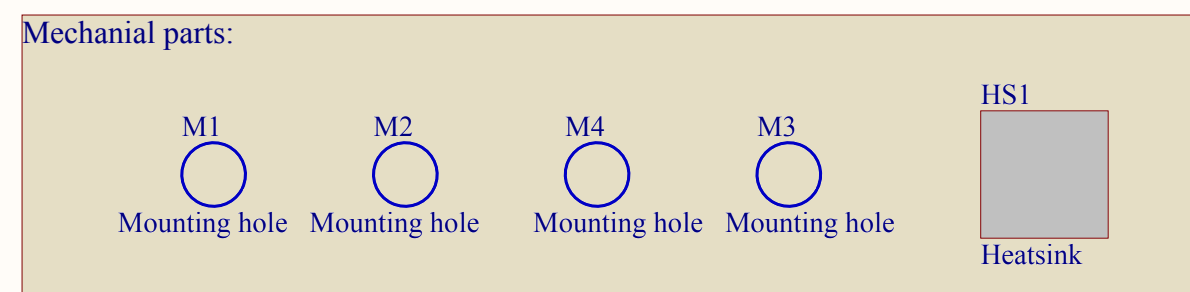
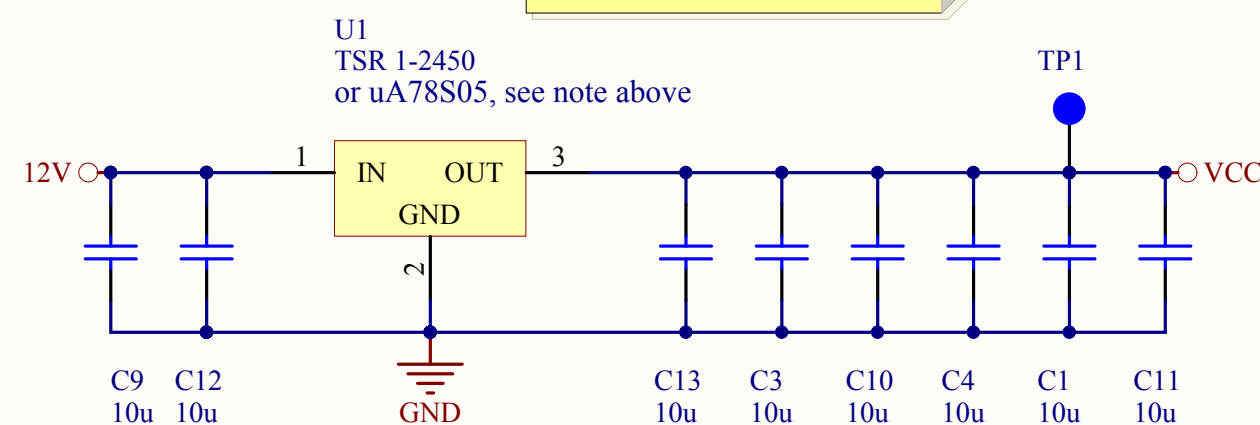


▲ VMOT:
Max: 48V (regulated)
Max: 10A cont.
Max: 14A peak

▲ uA78S05 will get very hot (70°C)
Allow for good venting or reduce
12V to 10V or mount U1 on
bottom of PCB and build a heatsink
to cool it together with the driver
FETs.
You can use TRACO TSR 1-2450
switching regulator instead.



Motor control connector:		
PIN1	Power	10V-12V 200mA max supply voltage
PIN2	Power	10V-12V 200mA max supply voltage
PIN3	In	Step on H/L transition
PIN4	In	Direction (FWD/REV)
PIN5	In	Enable (act. low)
PIN6	Out OC	Error (act. low) see note below
PIN7	Out	Encoder Index signal
PIN8		NC
PIN9	Power	GND
PIN10	Power	GND (marked by hole in PCB)

Note:
Pin 6 is an open collector output (100mA max) that is low on error. It is also low on controller startup for max. 500ms.
Positioning errors can be reset by disabling the device using the enable pin. Internal calculation errors cannot be reset.

UPCXP prog. connector:		
PIN1	Power	VCC output
PIN2	In	MCLR from dsPIC controller for ICP
PIN3	In	PGD from dsPIC controller for ICP
PIN4	In	PGC from dsPIC controller for ICP
PIN5	Out	TX for terminal program (TTL level)
PIN6	In	RX for terminal program (TTL level)
PIN7		NC
PIN8	Power	GND

Connector is used for programming dongle

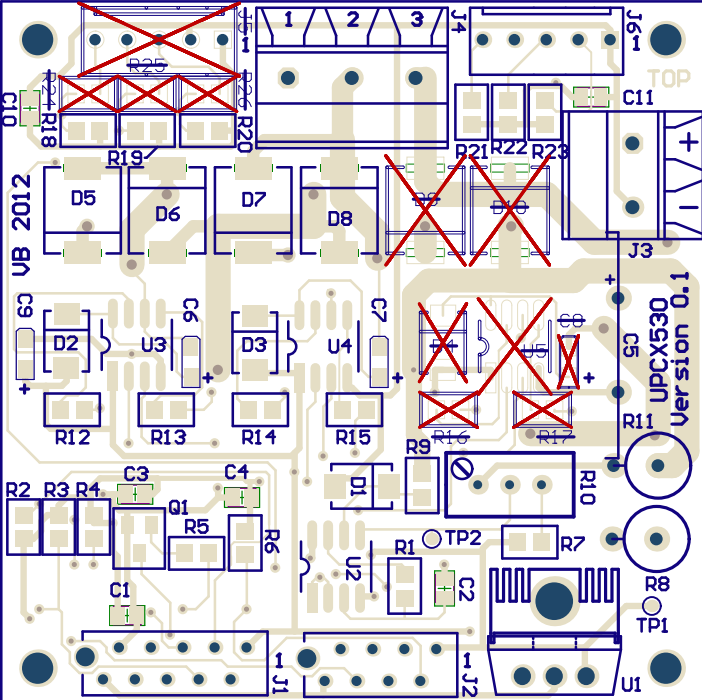
▲ Note on encoders and motors:

Encoders:
Relative A/B signal TTL level encoders. Index pulse is not used by UPCX 530 but can be evaluated by host.

DC-Servomotors:
A DC-Servomotor is detected on power-up of the controller by finding all hall signals high (nothing connected to J5).

BLDC-Servomotors:
BLDC-Servomotors must contain TTL level hall sensors for phase detection. The ratio of "hall phases per revoulution" / "motor pole number" must be 3.
A BLDC-Servomotor is detected on power-up of the controller by finding at least one hall signal low (hall sensors connected to J5).

Title			UPCX530 HBridge Board		
Size	Number				Revision
A3					
Date:	04.08.2012			Sheet	of
File:	D:\Users\...\UPCX530HBridge.SchDoc			Drawn By:	



BOT

~~C16~~

~~C15~~

~~C14~~



Q7

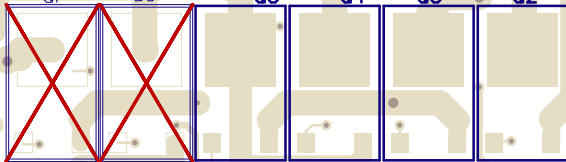
Q6

Q5

Q4

Q3

Q2



C13

C12



+

+

U6

