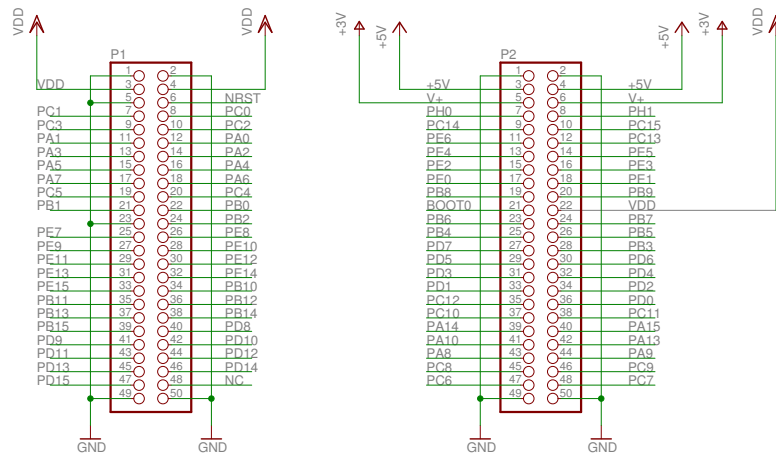
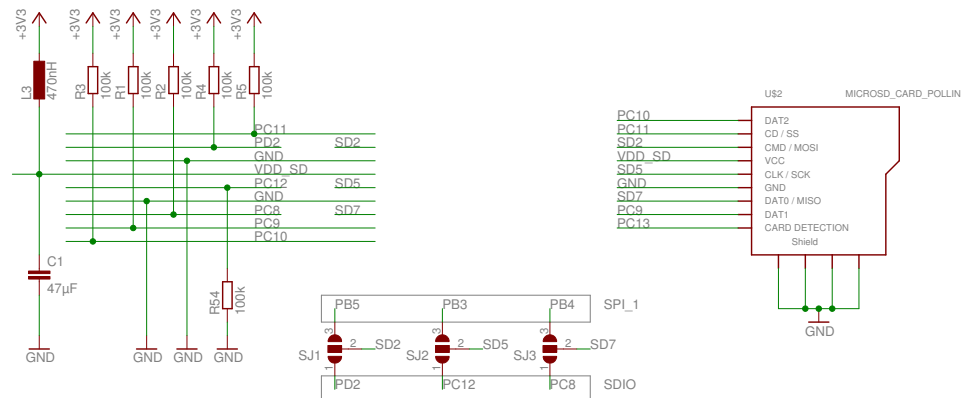


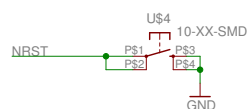
Interface to STM32F4 Discovery



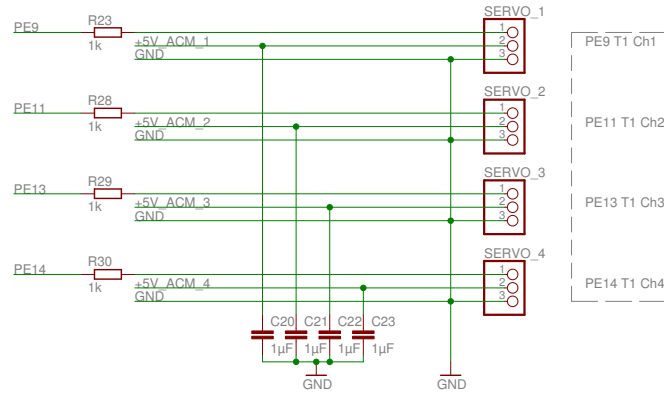
SD/MMC Card Interface



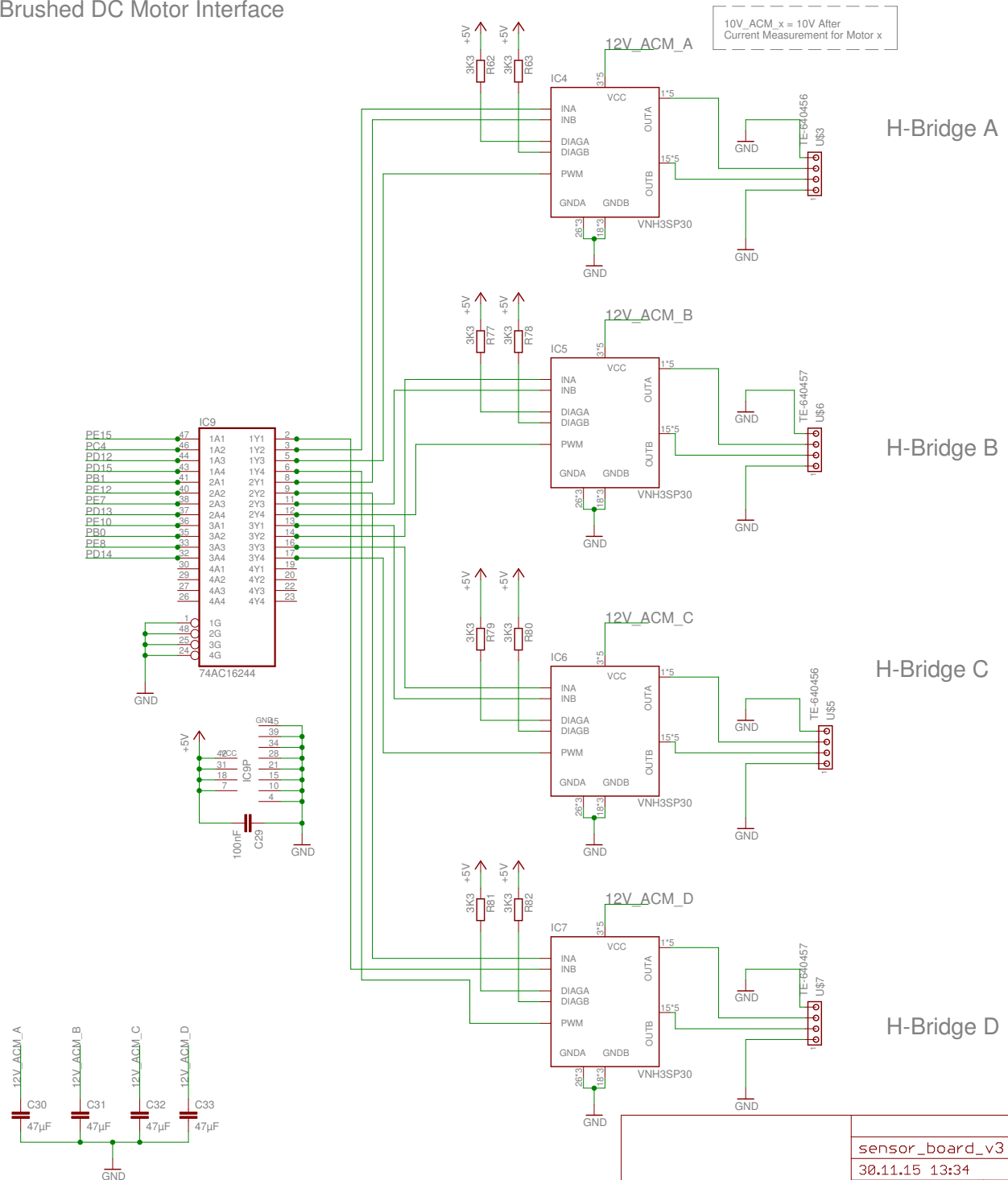
Reset Button



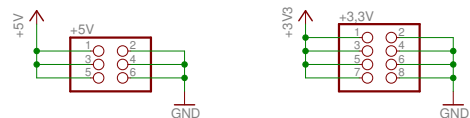
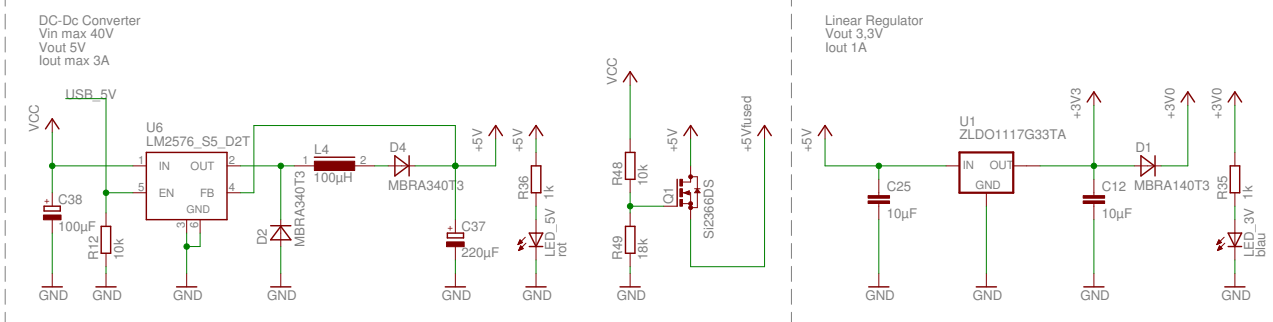
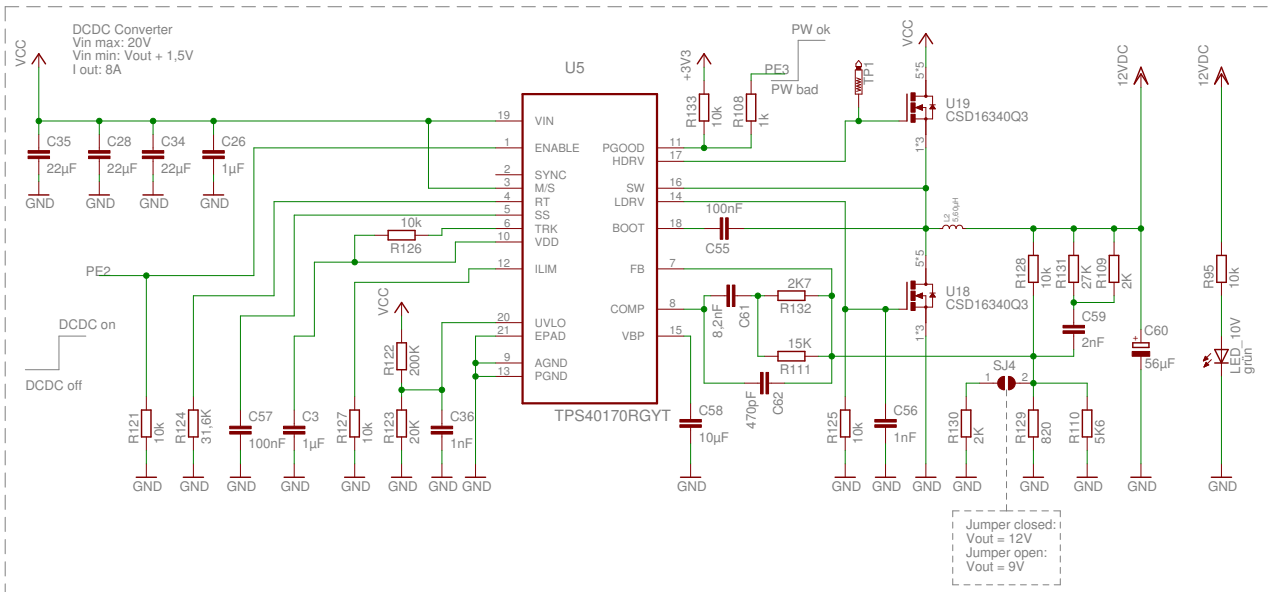
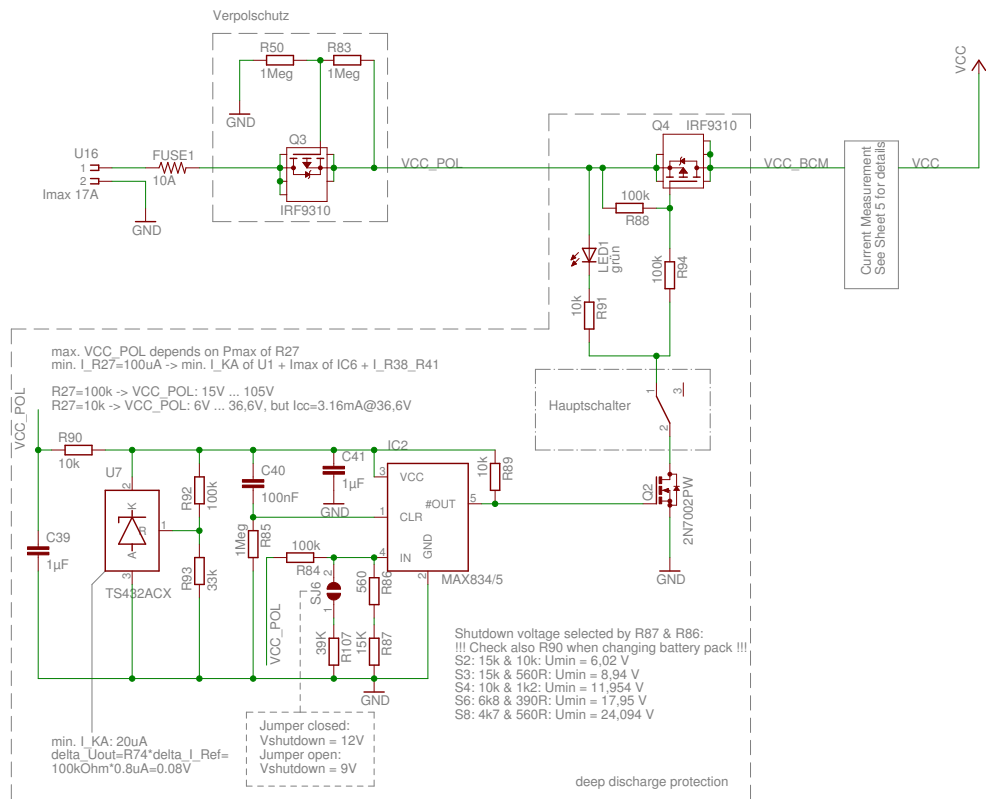
Servo Interface

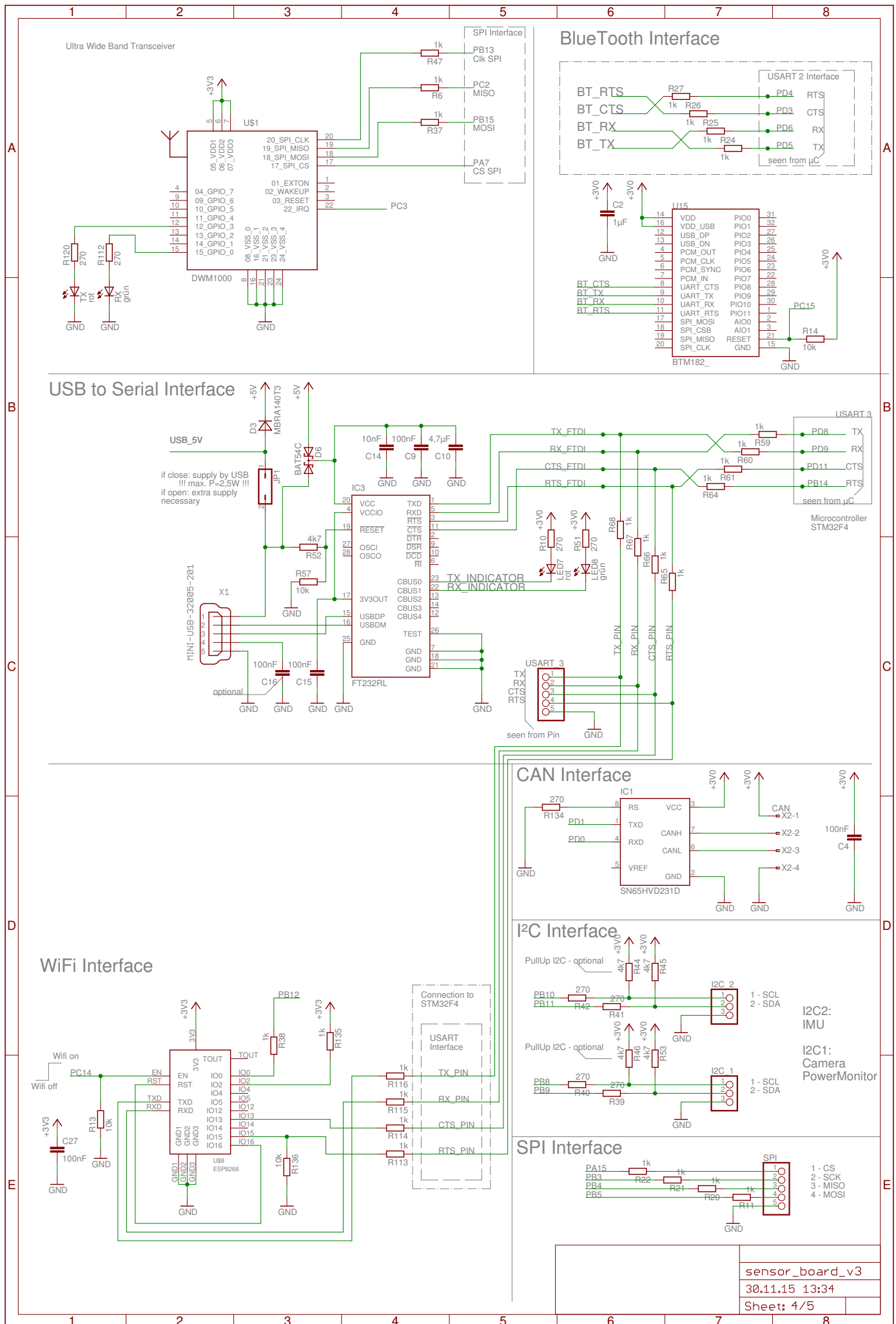


Brushed DC Motor Interface

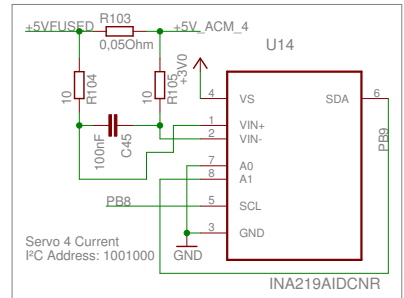
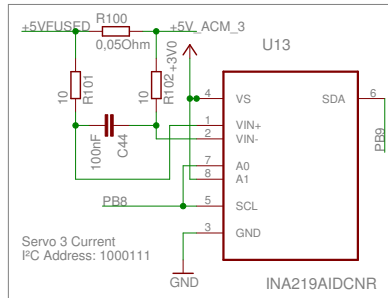
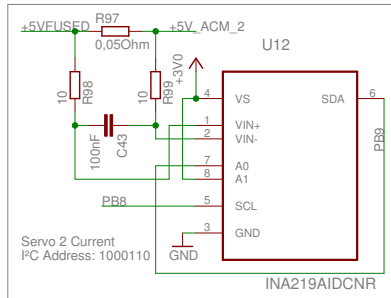
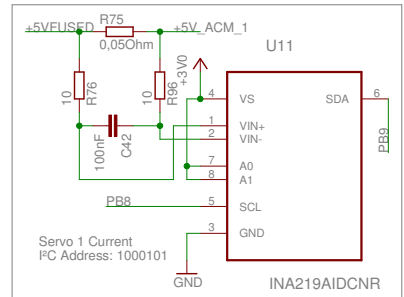
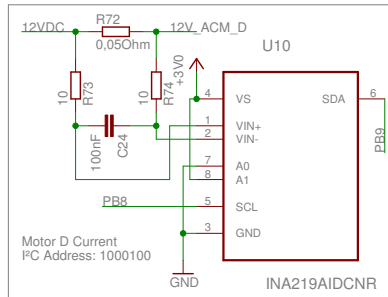
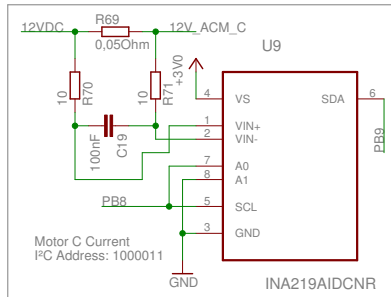
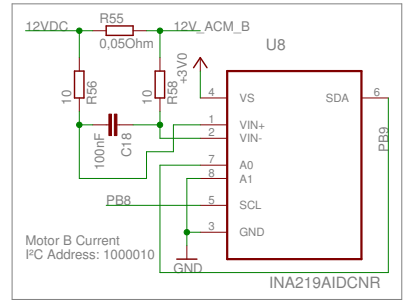
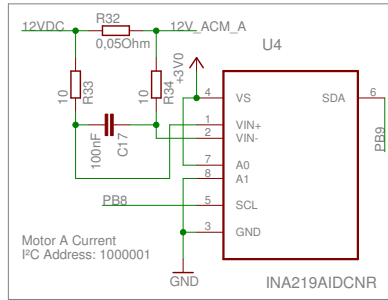
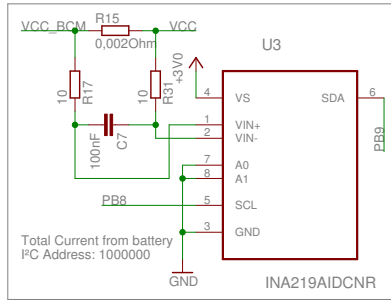


Power Supply

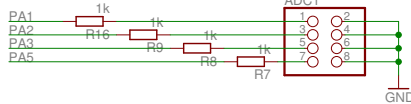




Current Measurement

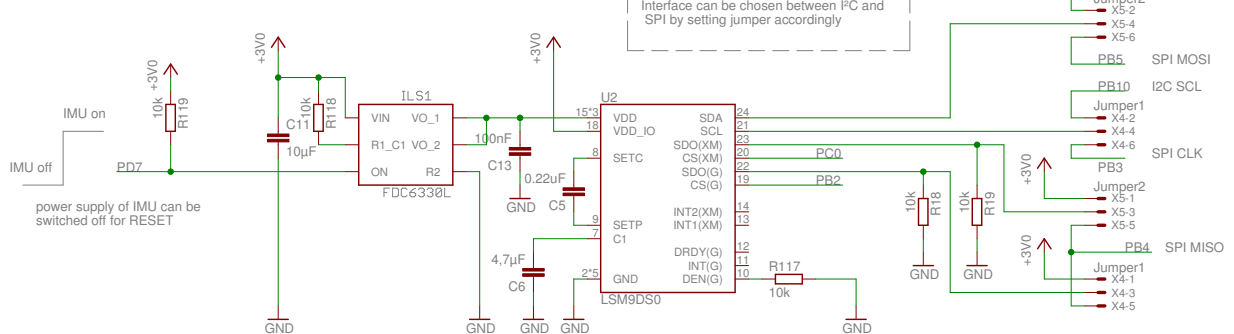


Pinout Interface ADC1



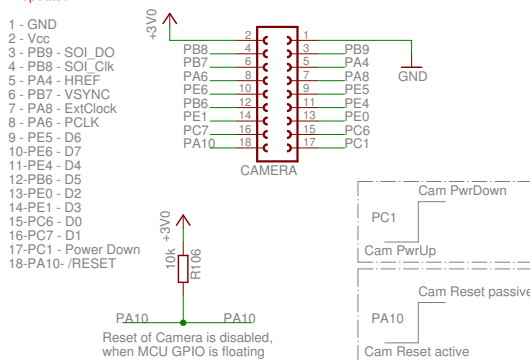
V_shunt_max=320mV
 $\rightarrow R_{shunt} = V_{shunt_max} / I_{shunt_max}$
 10A $\rightarrow 32m\Omega$ $\rightarrow P=3,2W$!!! to much -> choose smaller shunt value
 $R_{shunt_10A} = 2m\Omega$ $\rightarrow P=R \cdot I^2 = 0,2W$
 2A $\rightarrow 160m\Omega$ $\rightarrow P=0,64W$!!! to much -> choose smaller value
 $R_{shunt_2A} = 50m\Omega$ $\rightarrow P=R \cdot I^2 = 0,2W$

Inertial Measurement Unit

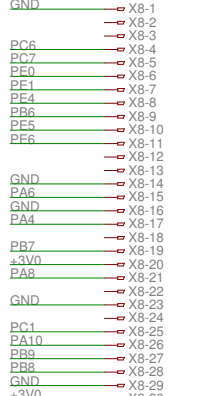


Camera_Interface

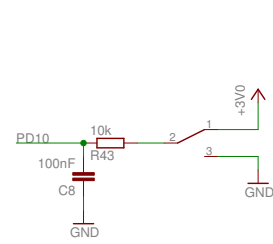
updated!!!



FH12-30S-0.5SH



User Switch



TW: corrected pin discription of CAMERA connector

sensor_board_v3
 30.11.15 13:34
 Sheet: 5/5