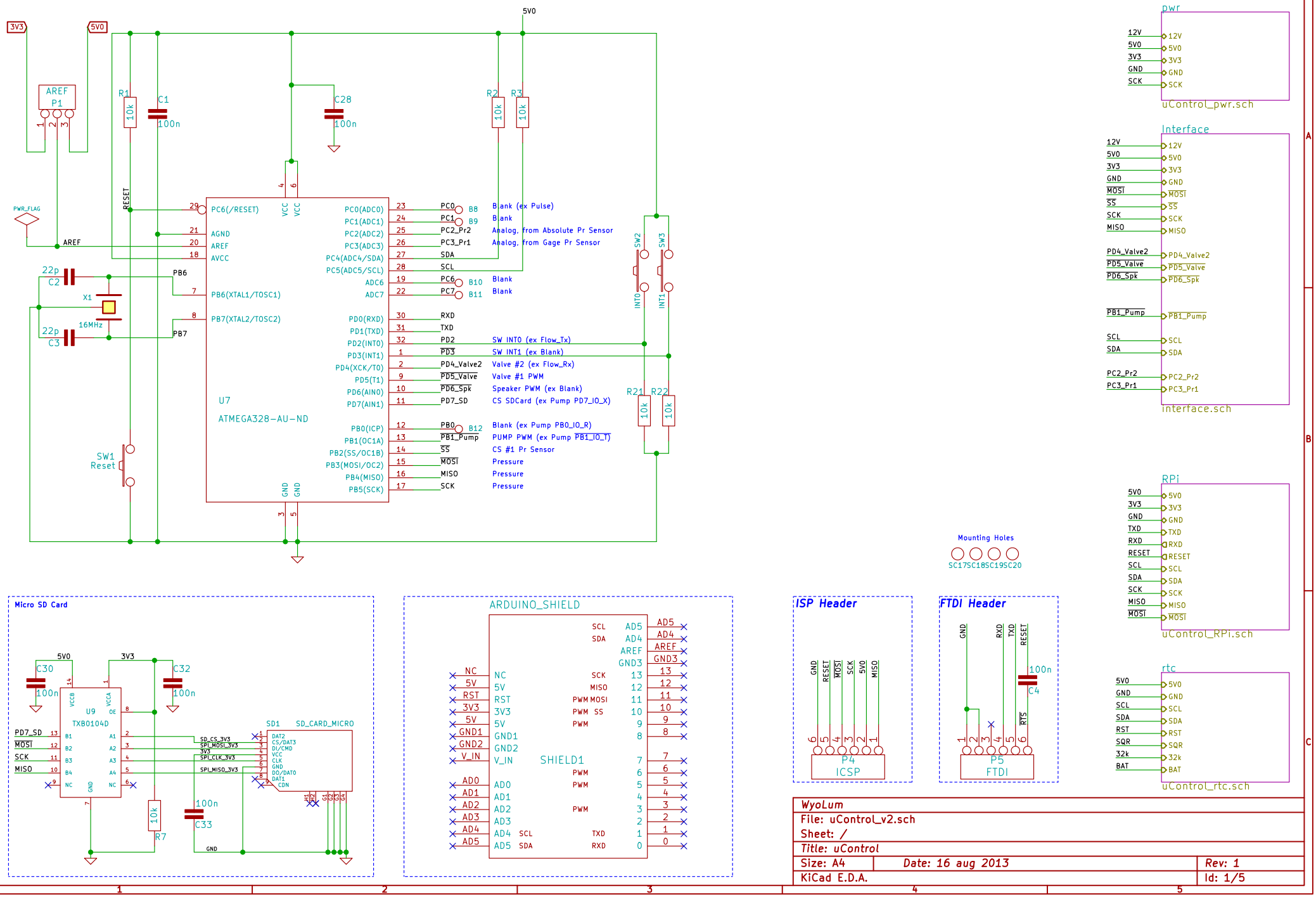
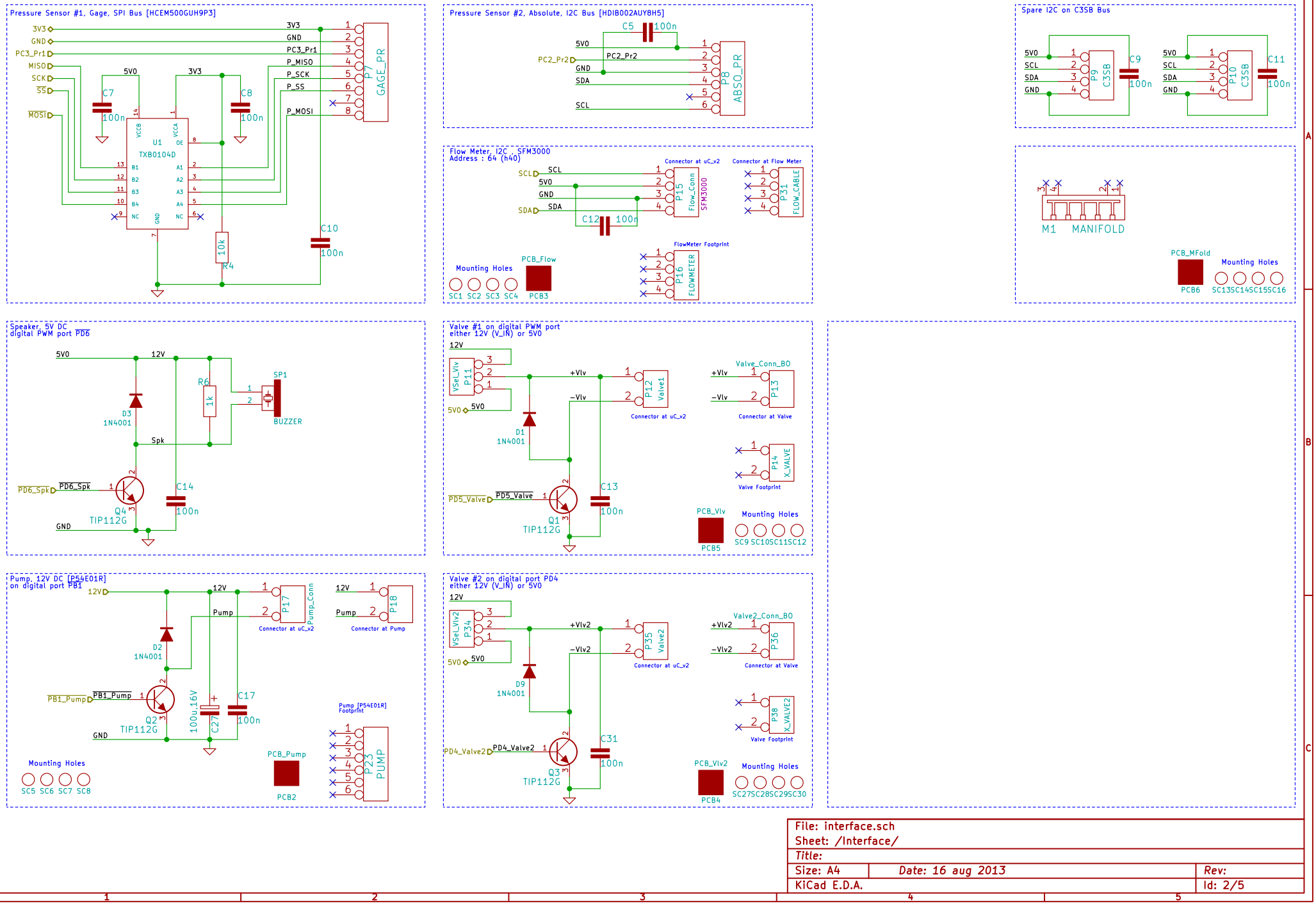
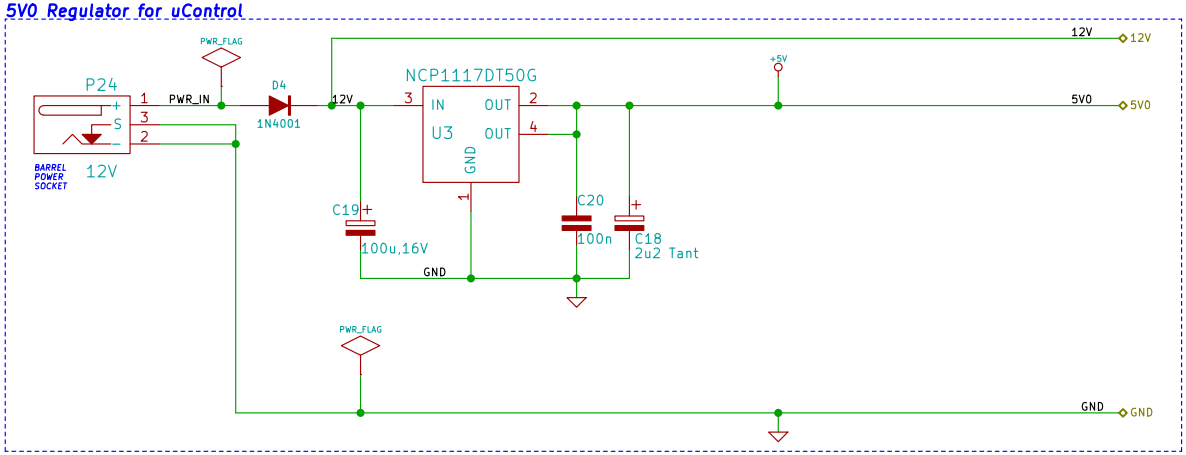

3V3
5V0
AREF
P1
R1
10k
C1
100n
C28
100n
R2
R3
10k
10k
RESET
PWR_FLAG
AREF
22p
C2
X1
16MHz
22p
C3
PB6
PB7
SW1
Reset
U7
ATMEGA328-AU-ND
PC6(/RESET)
AGND
AREF
AVCC
PB6(XTAL1/TOSC1)
PB7(XTAL2/TOSC2)
PC0(ADC0)
PC1(ADC1)
PC2(ADC2)
PC3(ADC3)
PC4(ADC4/SDA)
PC5(ADC5/SCL)
ADC6
ADC7
PD0(RXD)
PD1(TXD)
PD2(INT0)
PD3(INT1)
PD4(XCK/T0)
PD5(T1)
PD6(AIN0)
PD7(AIN1)
PB0(ICP)
PB1(OC1A)
PB2(SS/OC1B)
PB3(MOSI/OC2)
PB4(MISO)
PB5(SCK)
PC0 B8 Blank (ex Pulse)
PC1 B9 Blank
PC2_Pr2 Analog, from Absolute Pr Sensor
PC3_Pr1 Analog, from Gage Pr Sensor
SDA
SCL
PC6 B10 Blank
PC7 B11 Blank
RXD
TXD
PD2 SW INT0 (ex Flow_Tx)
PD3 SW INT1 (ex Blank)
PD4_Valve2 Valve #2 (ex Flow_Rx)
PD5_Valve Valve #1 PWM
PD6_Spk Speaker PWM (ex Blank)
PD7_SD CS SDCard (ex Pump PD7_IO_X)
PB0 B12 Blank (ex Pump PB0_IO_R)
PB1_Pump PUMP PWM (ex Pump PB1_IO_T)
SS CS #1 Pr Sensor
MOSI Pressure
MISO Pressure
SCK Pressure
SW2
SW3
INT0
INT1
R21
R22
10k
10k
pwr
12V
5V0
3V3
GND
SCK
uControl_pwr.sch
Interface
MOSI
SS
MISO
PD4_Valve2
PD5_Valve
PD6_Spk
PB1_Pump
interface.sch
RPi
TXD
RXD
RESET
uControl_RPi.sch
rtc
SQR
32k
BAT
uControl_rtc.sch
Mounting Holes
SC17SC18SC19SC20
Micro SD Card
U9
TXB0104D
C30
100n
C32
100n
C33
100n
R7
10k
SD1
SD_CARD_MICRO
SD_CS_3V3
SPI_MOSI_3V3
SPI_CLK_3V3
SPI_MISO_3V3
ARDUINO_SHIELD
SHIELD1
ISP Header
P4
ICSP
FTDI Header
P5
FTDI
C4
100n
WyoLum
File: uControl_v2.sch
Sheet: /
Title: uControl
Size: A4
Date: 16 aug 2013
Rev: 1
KiCad E.D.A.
Id: 1/5

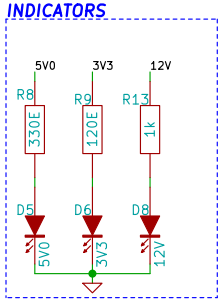


File: interface.sch		
Sheet: /Interface/		
Title:		
Size: A4	Date: 16 aug 2013	Rev:
KiCad E.D.A.		Id: 2/5

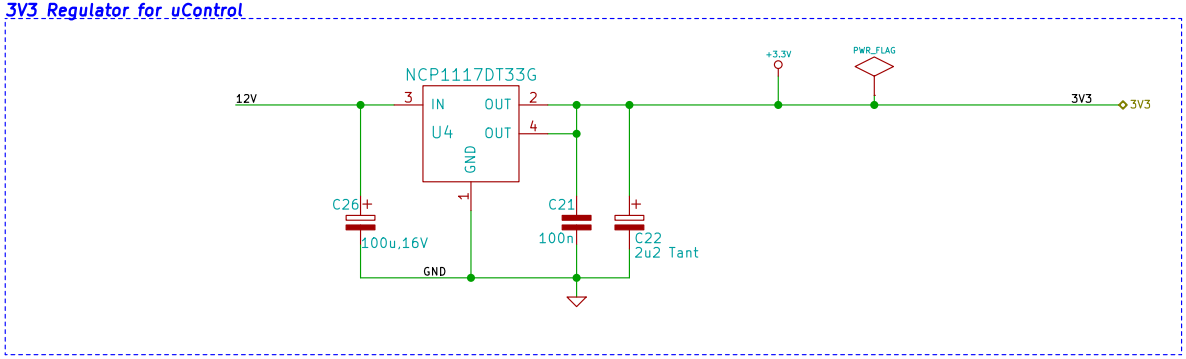
5V0 Regulator for uControl



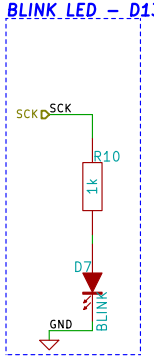
INDICATORS



3V3 Regulator for uControl



BLINK LED – D13



Logo_Wyolum

G1
Logo_Wyolum

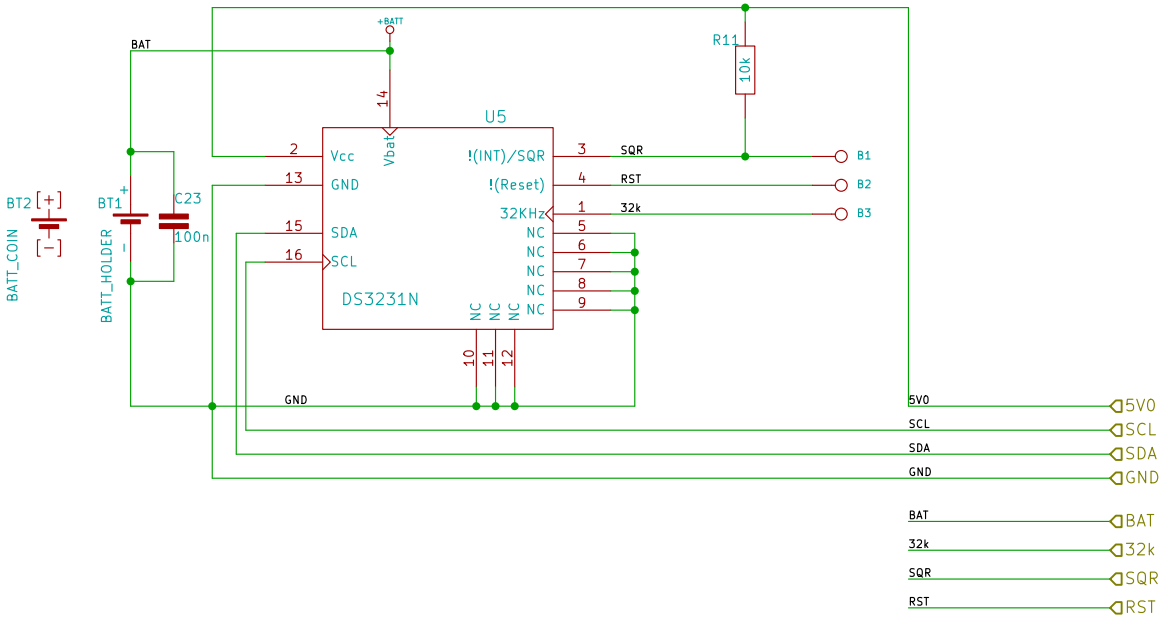
G2
Logo_OH

G3
Logo_OH

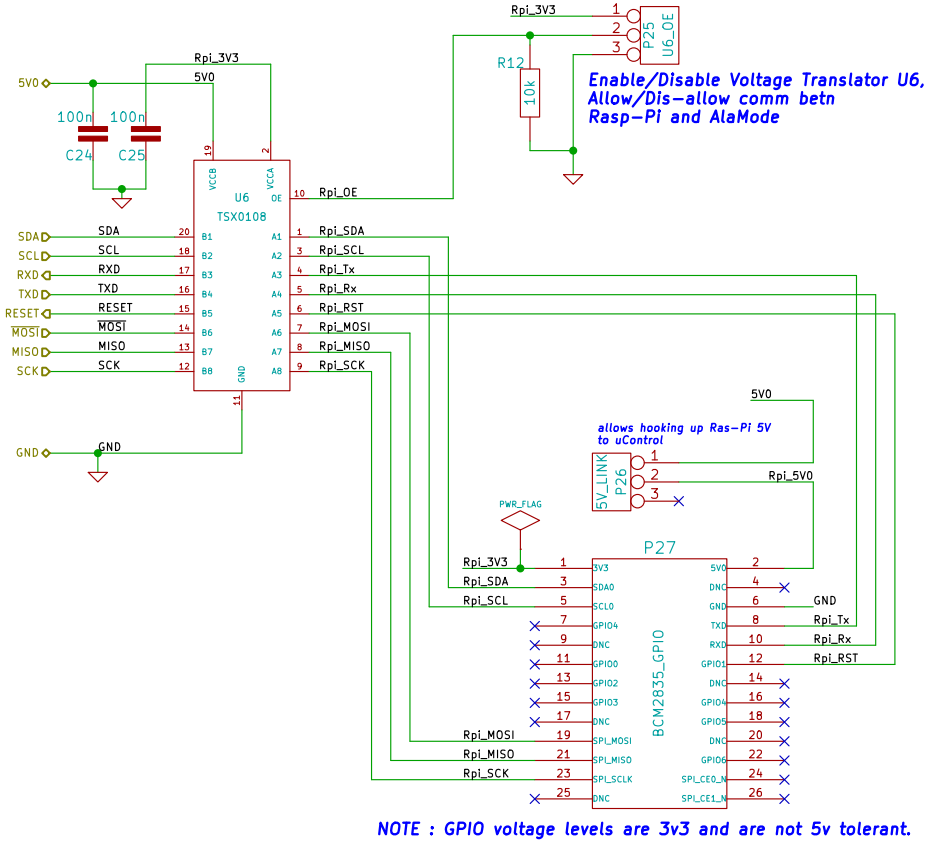
G4
PCB

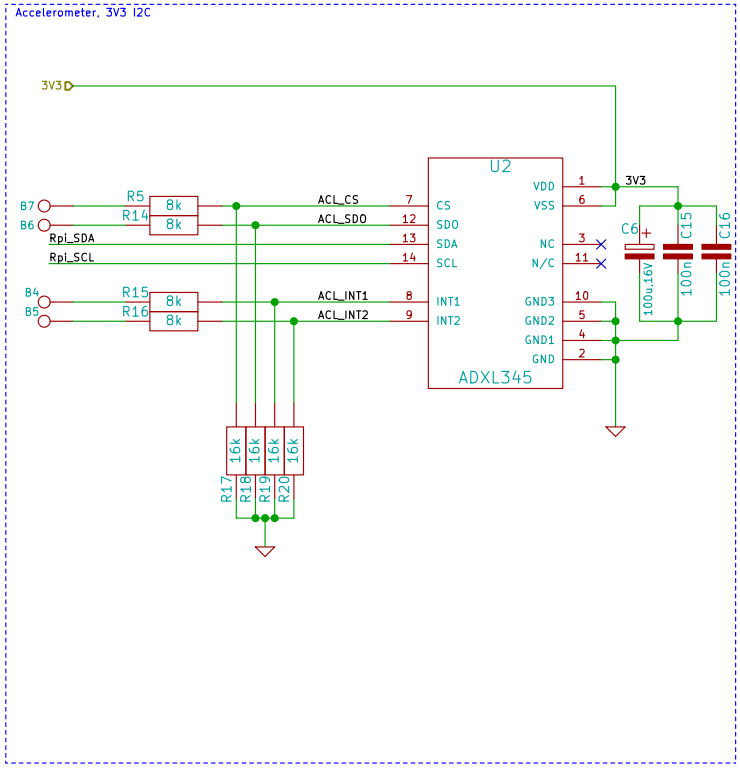
PCB1

WyoLum		
File: uControl_pwr.sch		
Sheet: /pwr/		
Title: uControl		
Size: A4	Date: 16 aug 2013	Rev: 1
KiCad E.D.A.		Id: 3/5



WyoLum		
File: uControl_rtc.sch		
Sheet: /rtc/		
Title: uControl		
Size: A4	Date: 16 aug 2013	Rev: 1
KiCad E.D.A.		Id: 4/5





Mounting Holes
for Raspberry-Pi

SC25 SC26

WyoLum		
File: uControl_RPi.sch		
Sheet: /RPi/		
Title: uControl		
Size: A4	Date: 16 aug 2013	Rev: 1
KiCad E.D.A.		Id: 5/5