ADC

C1
10 pf

100K
R1

4.5V

SFH203
D1

2 −
3 +
8
LM2904
1
4
IC1A

0V

R2
7.5K
4.5V

12V

R3
1.2K

3.3K
R4
3.3V

0V

IC2

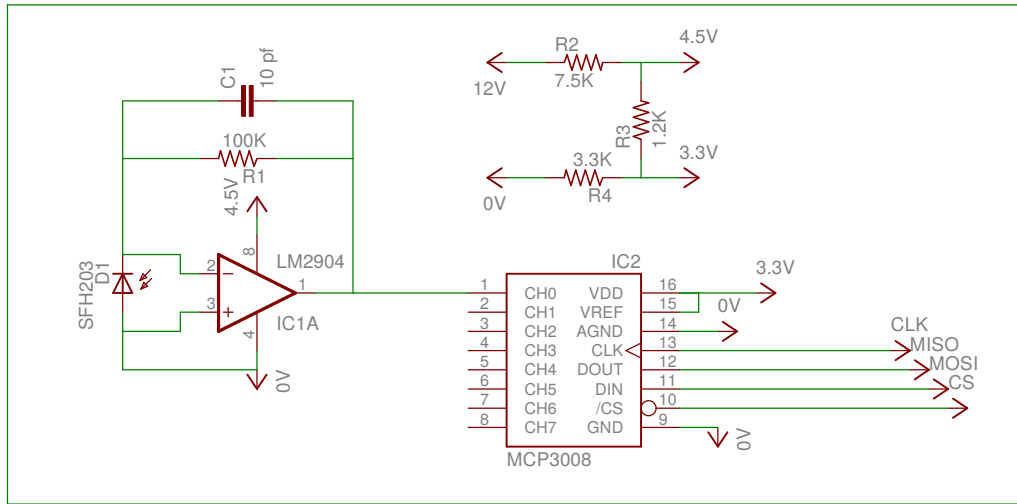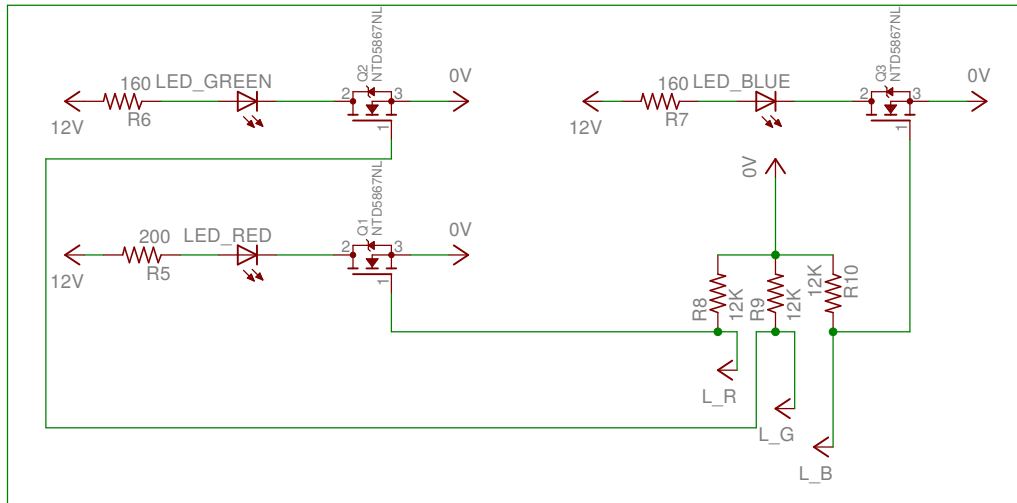| 1 | CH0 | VDD | 16 | 3.3V |
2	CH1	VREF	15	0V
3	CH2	AGND	14	
4	CH3	CLK	13	CLK
5	CH4	DOUT	12	MISO
6	CH5	DIN	11	MOSI
7	CH6	/CS	10	CS
8	CH7	GND	9	0V

MCP3008

LEDS

forward voltage
red - 1.8V
green - 3.2V
blue - 3.2V

160 LED_GREEN
R6
12V

Q2
NTD5867NL
2 3
1
0V

160 LED_BLUE
R7
12V

Q3
NTD5867NL
2 3
1
0V

0V

200 LED_RED
R5
12V

Q1
NTD5867NL
2 3
1
0V

R8 12K
R9 12K
R10 12K

L_R
L_G
L_B

Pinout

J2
12V
0V

J1
CLK
MISO
MOSI
CS
L_B
L_G
L_R