Pin

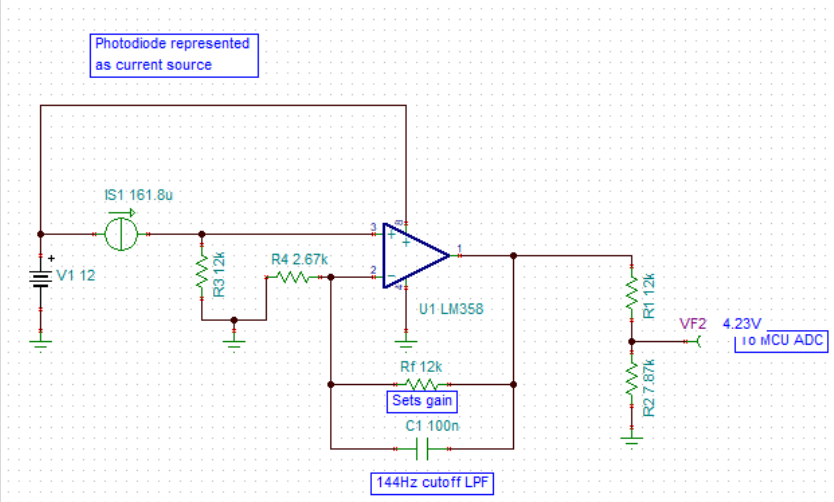
With a loopback plugged in the Voltage read from the Arduino was 4.23V

The simulation was used to find the current coresponding to this voltage (161.8 uA)

The optical power was read using the power meter (1.14 mW)

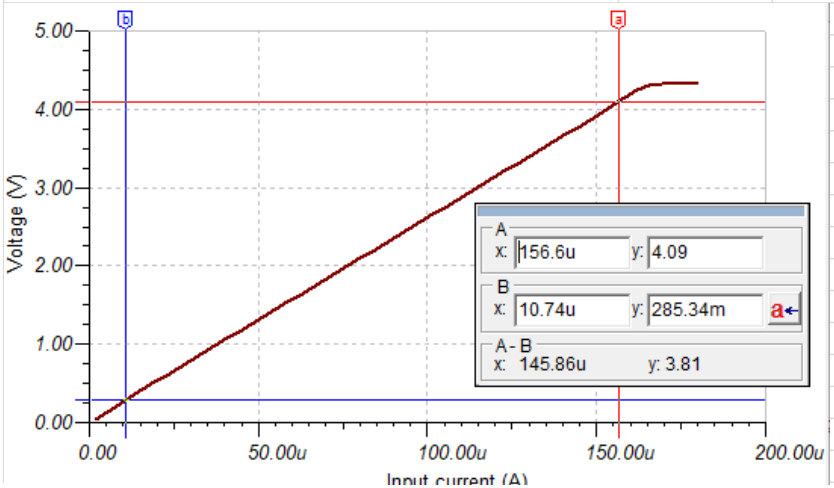
The responsivity was calculated using these two numbers

I_PD	Po	Responsivity
161.8	1.14	**0.1419298246**



The current was swept from 1.6 uA to 180 uA to simulate the full range of optical power anticipated

The response of the OpAmp was plotted and the slope extracted

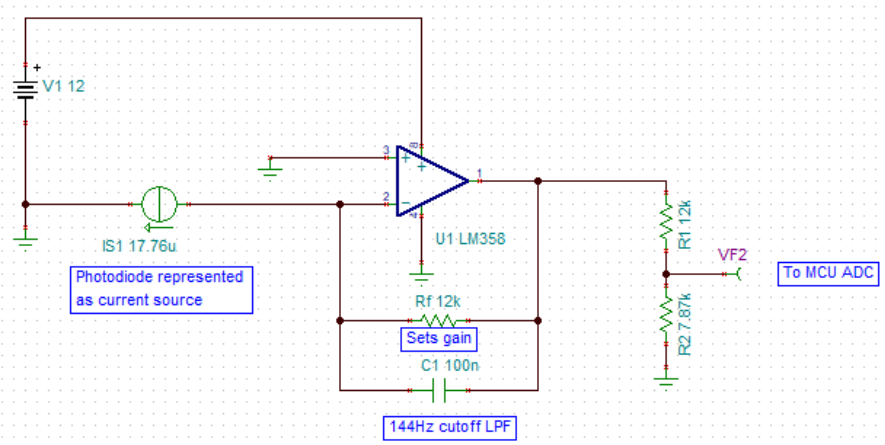


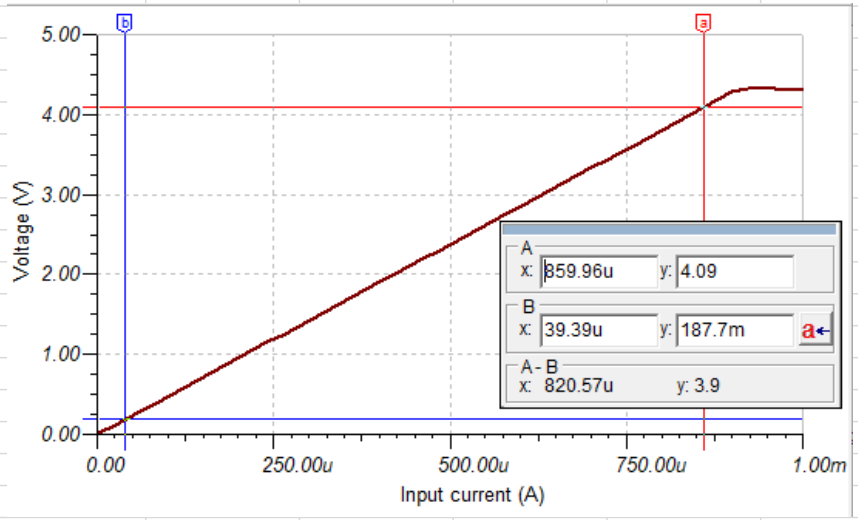
Pout

The responsivity of the Pout Photodiode was assumed to be 0.95 based on the datasheet

The slope of the OpAmp response was found by sweeping the PD current from 2.26 uA to 1 mA

Responsivity
0.95





dy [mV]	3900
dx [mA]	0.82057
Slope	**4752.79379**

		Input current (A)									
dy [mV]	3810										
dx [mA]	0.14586			**FINAL EQs**							
Slope	**26120.93789**			Pinv = 10*log10(1000*Voltagein/(0.1419*26120.94));							
				Poutv = 10*log10(1000*Voltageout/(0.95*4752.79));							