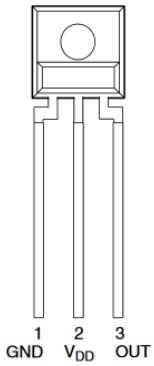
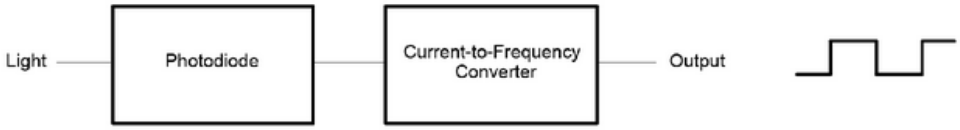
TECH 4243
Lab #4

Ver 1.0

Background: The TSL237 is a light-to-frequency converter. The more intense the light, the higher the frequency output.





A quick test of the sensor gave the following readings:

Light Condition	Freq out (KHz)
Dark (shaded by hand over sensor)	1.6
Bright Light (using cell phone as flashlight)	806

Using the Timer Input Capture feature, display counts and Frequency (Hz) to the terminal.

Reminders:

- Don't forget your clock prescaler in your calculation
- Since Frequency will be a calculation using division, you will need to use floating point values
- With Floating point you will need to turn on the ability to printf with floating point values. See ADC lab for instructions.

Make sure to use a proper prescale value to be able to read 1.6KHz to 806KHz range of the sensor.