# Environmental Logger Sensor Selections and Descriptions

Oct 7/16

## Pressure Sensor

This sensor will be used to measure the air pressure on Mars.

This sensor has an output voltage that varies linearly with pressure. The sensor will require a constant current circuit that is fed into the sensor. That will then need to be fed into an instrumentational amplifier to amplify the output voltage up to the 0 – 5V range that we can convert using the ADC on our board.

## Photodiode

This sensor will be used to measure the ambient light on Mars.

This sensor outputs a small current that varies linearly with light. This current can be put into a resistor and use (possibly several) inverting amplifier(s) to amplify the voltage to the 0 – 5V range that our board’s ADC can use as input.