# CENG 317 Proposal

1. Basic info
   1. Name: Kristian Medri
   2. Date: 2020-09-09
   3. Section: ABC
   4. Sensor/Effector choice: LEDbar
2. I will make a USB serial device that will receive input for an effector (LED gauge bar) via [Seeed Studio assembly](https://www.seeedstudio.com/fusion_pcb.html). This can be connected via a USB cable to a PC and PuTTY can be used for debugging. They can then also be connected to a Pi via USB but not necessarily this term.
3. Preliminary Bill of Materials
   1. OPL: [Seeed](https://www.seeedstudio.com/opl.html)
   2. MPN: SP400561N
   3. Qty: 1
   4. Link: <https://statics3.seeedstudio.com/images/opl/datasheet/304080004.pdf>
   5. Description: LED 10 SEG Gauge Bar
   6. Manufacturer: Incorrect data sheet?
   7. Package: PTH
4. Specifications
   1. What does it sense/effect? Provides visual bar graph display to users.
   2. How accurate is it? It has 10 segments.
   3. Voltage range: Forward voltage of 2.1V
   4. Current draw: Design for 10mA/segment
   5. Protocol: GPIO
   6. Additional components needed:
      1. OPL: [Seeed](https://www.seeedstudio.com/opl.html)
      2. MPN: RC0603JR-07220RL
      3. Qty: 10
      4. Link: <https://statics3.seeedstudio.com/images/opl/datasheet/301010163.pdf>
      5. Description: 220 Ohm Resistor
      6. Manufacturer: Yageo
      7. Package: 0603
   7. Additional components continued: Jumpers?
5. References:  
   [Fritzing for Inventors](https://learning-oreilly-com.ezproxy.humber.ca/library/view/fritzing-for-inventors/9780071844642/ch01.html" \l "ch01)