TrashSAT Subsystem Sketches



- SparkFun ToF Range Finder Sensor VL6180
- The range finder sensor will serve as our LIDAR detector that we will use to detect the space debris.



- Arduino Hamshield
- The Hamshield allows Arduino to communicate over long distances. It will allow the TrashSAT to relay data back to us.

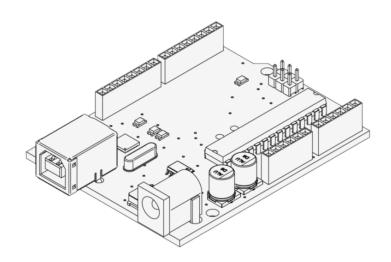


- BME 280 Temperature, Barometer, and Humidity Sensor
- The BME 280 will help us keep track of the internal temperature of the TrashSAT. It will also help us track the altitude of the TrashSAT by measuring the atmospheric pressure



Breadboard

 The Breadboard will contain all of the wires for the Cubesat. It will be used to connect all of the systems and sensors to power.

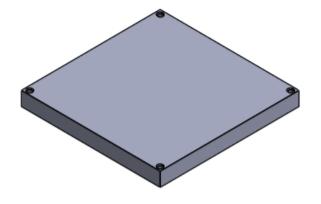


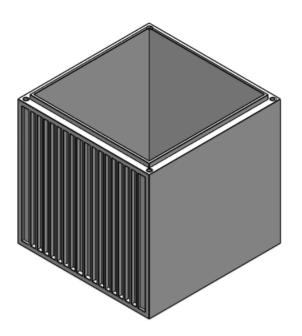
Arduino Uno

 The Arduino Uno will be the brain of the CubeSat. It will distribute the power between all of the systems, and control all of the sensors.



- Tenergy NiMH Battery Pack 12V 2000mAh High Capacity Rechargeable Battery
- The battery pack will provide power to run all of the sensors and systems on the CubeSat. The battery pack is rechargeable so solar panels could be used to recharge it.





CubeSAT Shell

 The shell of the CubSAT will contain all the electronic components and will include a heatsink to keep the electronic systems from becoming overheated.

