Meeting with Shiakolas

Meeting Time: 12:50pm - 2:45pm

People present: Dan Lain, Tim Edmondson, Jesse Bowles, Dr. Shiakolas

* Went over the basics of 3D printing.
  + 3D models are made in some sort of CAD program, then exported to an STL file format which is just a data format.
  + The STL file is then input into a 3D printing program that analyzes it and allows the user to set up how the 3D model will be created.
  + The 3D printing program tells the 3D printer to print the model.
  + 3D printer prints each horizontal layer at a time (usually about 1/1000 inch).
* Discussed Project Basics
  + Make 3D printing software that looks at an STL file representing a 3D model.
  + The STL file will contain information identifying different parts of the model as being made of different types of material.
  + The 3D printing software needs to be able to generate machine instructions for a 3D printer that has a nozzle that can "print" multiple different types of material.
  + The "multi-material" 3D printer is being designed and created by a Mechanical Engineering Senior Design team that we will need to work with.
  + Our end of the project is to take in the STL file, and tell the machine what to do.
  + The ME team will provide information about how to treat each material (e.g. nozzle temperature, environment temperature, etc.), we just need to relay this information based on the materials identified in the STL.