

Preparations

Weekly Report 1/3/17 to 1/7/17

During this short week in ISM I mainly worked on preparing and finalizing my materials for the ISM research showcase night which would be held on the 17th. I worked on finalizing my website by making sure all the information I had on there was spell-checked and properly formatted, such as the buttons which would link the viewer to the various weekly reports and assessments on their respective pages. I had also worked on my display board during this week and kept in mind the same theme as my invitations and resume with the navy, gold, and grey color scheme as well as the diagonal lines. During the week I also focused most of my effort towards my original work as I continued to test more designs and contact more services for CNC machining while starting the prototyping of some of these models using my home 3D printer. I noted some of the factors which would often affect the quality of the parts such as the temperature and cooling capabilities of the printer while also checking the tolerances and various values of the lengths I had inputted into my CAD model before making revisions for the next print. The model I designed to test these tolerances was a simple one-piece “print-in-place” hinge which the user would have to force slightly after printing to free the hinge. With this model it demonstrates a limitation of CNC machining while also demonstrating an advantage of 3D printing. In the coming weeks leading up to the research showcase I will focus more on my original work as well as trying to schedule an interview with Mr. Dutton at Raytheon who I failed to contact this week in hopes of learning more about CNC machining which I could apply to my original work. In addition, I will also try to do final checks and polish my work this week to make it as presentable as possible for the showcase.