NICHOLAS BLANKS

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Summer 2015

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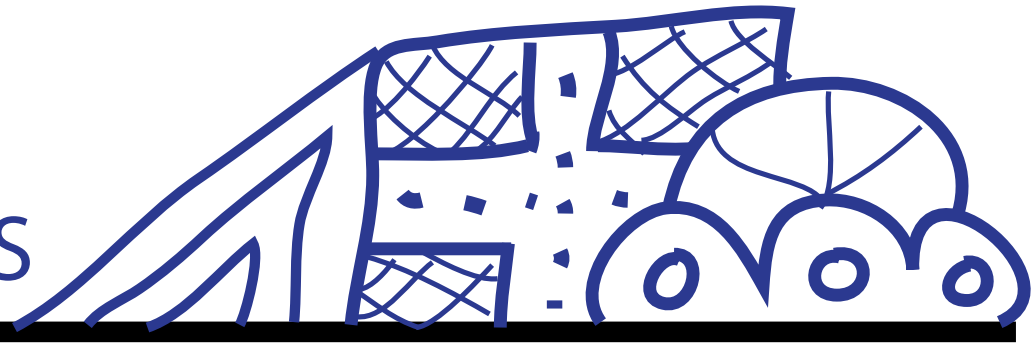
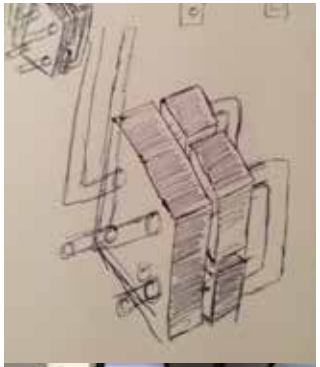
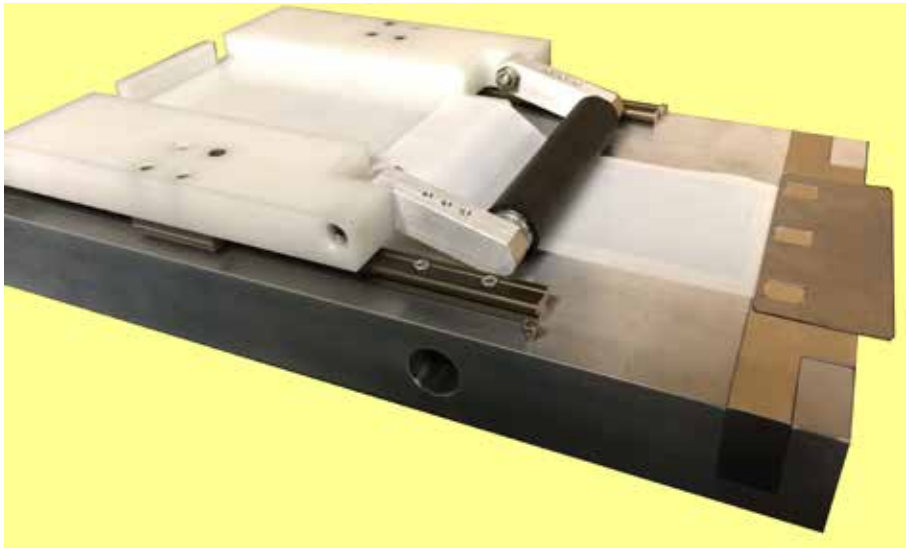


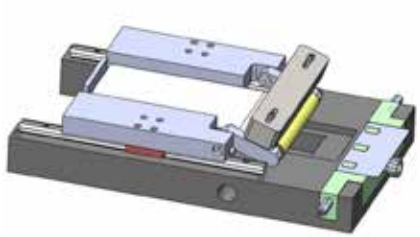


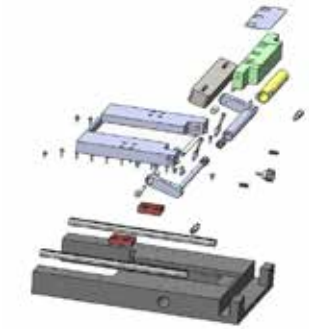
Superform

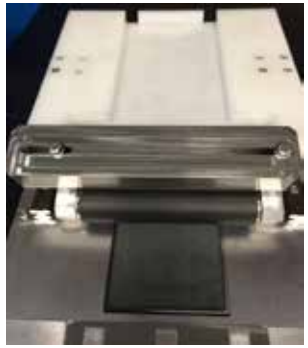
Maple, Steel Tubing
December 2014
Royal College of Art

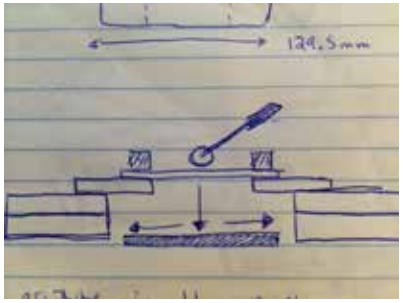
The brief for this project was simply "design a chair". During our kickoff presentation, the speaker quickly noted the "ugly bits" of chairs being the bolts and weld joints that hold everything together. My goal was to make the connectors of the chair as visually important as the pieces that one sits on. This project was selected to be publicly displayed in the Royal College of Art Work In Progress Show in February 2015.

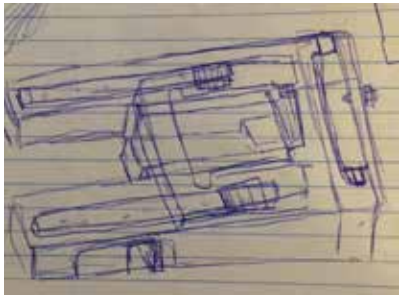








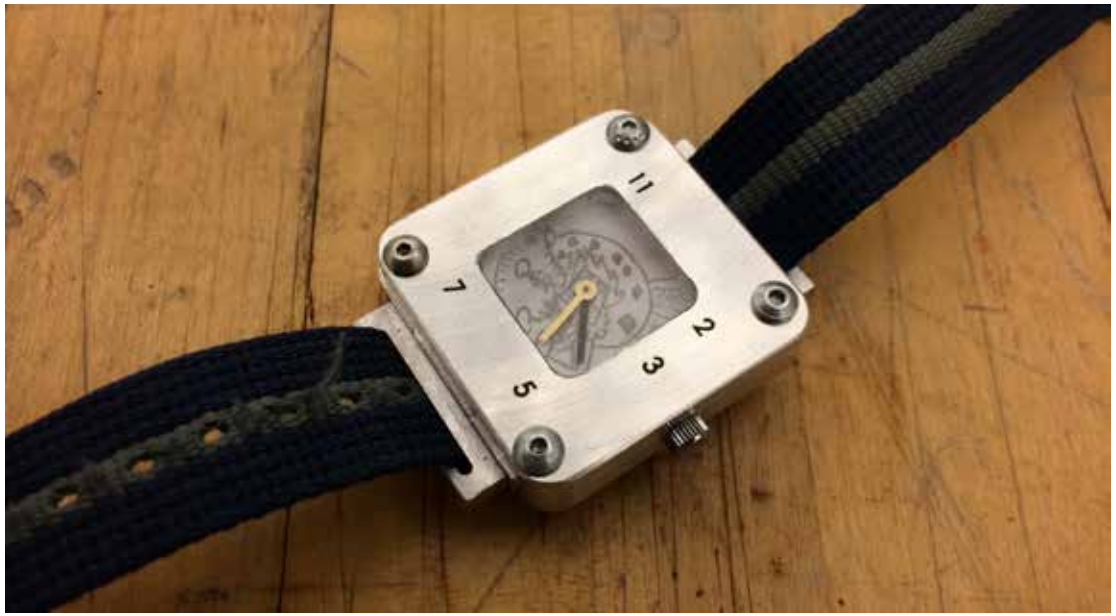


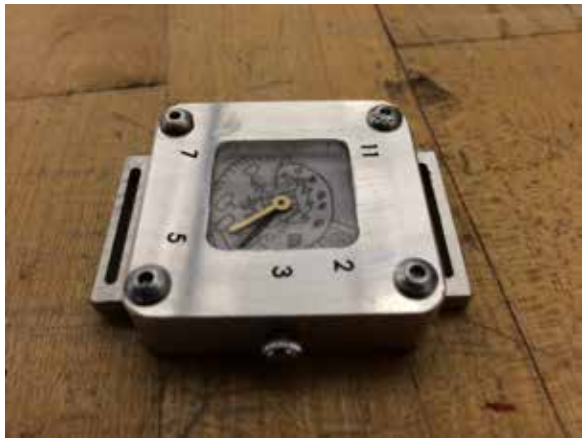


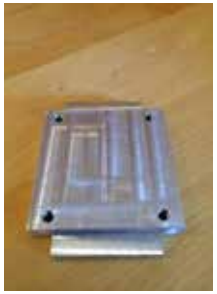
Battery Assembly Tool

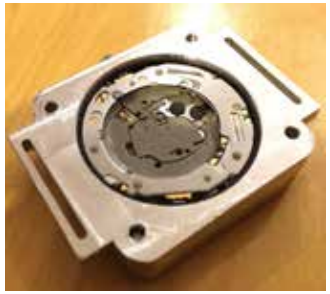
SolidWorks, Aluminum, Delrin
November 2013
24M Technologies

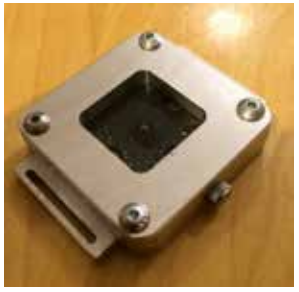
This tool was created as a proof of principle device for one of the processes in the battery build. The problem it solved was how to lay a very thin and sensitive film with adequate pressure onto a surface without wrinkles or air bubbles forming. Pressure is increased or decreased by using the mounting holes on the swing arms to add weight to the roller. This concept is currently being implemented into a first generation automated assembly line. It is the result of an iterative design process in which my concepts were critiqued by senior engineers before I sent out final engineering drawings to a machine shop.







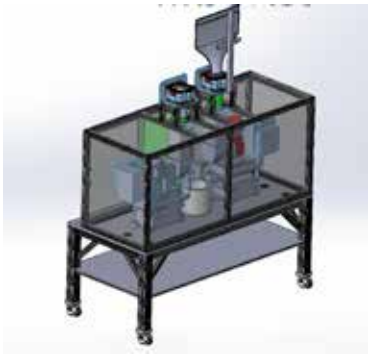


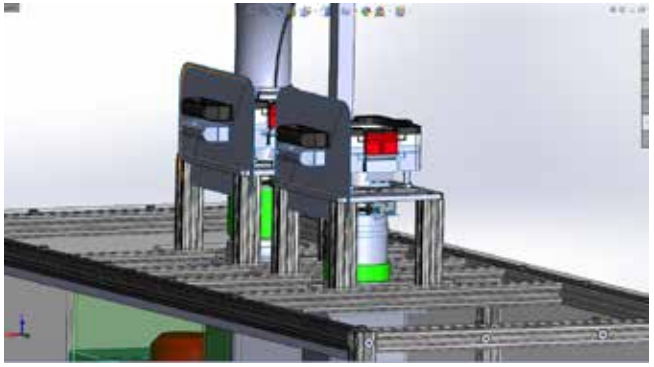


Custom Watch Case

Aluminum
February 2014
Personal Project

This watch case is the first project I have completed since finishing a manual machining course. The quartz movement is taken from a Timex Weekender watch and integrated into the custom case. The faceplate could be easily replaced and allows other designs to be added. The watch is designed to look like a hand made project and to reflect my machining capability and interest.





Powder Feeder Enclosure

SolidWorks, Aluminum Extrusions, Lexan
February 2014
24M Technologies

This enclosure is designed to protect two batch dispensing powder feeders from the outside environment and to keep powders from entering the outside environment. I sourced both the feeders as well as split gate butterfly valve system on top which allows powder loading. The valve mounts I designed custom. I ordered and assembled everything myself upon arrival.

I'll Take 9

Aluminum, Fast Cast Resin, Polycarbonate
February 2015
Royal College of Art

The purpose of I'll Take 9 was to design with mass manufacturing in mind. This was a team project and I was responsible for the design of the aluminum base as well as the interface between the upper part and the base. The goal was to combine two disparate entities, Rayban and pepper grinding. We decided our "pepper" in this case would be soap and the end product is a soap grinder.