Overview
The goal of this project was to design a clipboard that integrates an iPad thus providing doctors with the functionality of both items in one seamless product that can be mass produced. After identifying customer needs, the engineering team developed the “Clipboard+”, a product that outperforms the competitor’s product at a lower cost.

Objectives
The objectives of our project were to create a product which was easy to use, provided adequate protection for the iPad while retaining the functionality of a traditional clipboard, was easy to manufacture, and could be sold at a reasonable profit.

Approach
- Create a Gantt Chart and plan of attack
- Conduct market research on preexisting designs
- Identify customer needs through discussion with our sponsor and creating a survey for doctors
- Brainstorming and concept generation followed by a systematic concept selection
- Create a CAD model in SolidWorks
- Create alpha prototype using rapid prototyping
- Distribute alpha prototype to doctors to obtain feedback for improvements
- Analyze feedback from doctors and redesign concept
- Create a Beta prototype and show to sponsor
- Redesign to fit sponsors financial constraints and improve manufacturability
- Create additional prototypes to assist in finalizing the design
- Construct final prototype
- Obtain quotes for manufacturing the product and select a manufacturer for production

Outcomes
- Design and constructed the Clipboard+, a clipboard that integrates and iPad with a clipboard
- Clipboard design to minimize manufacturing cost for a small lot size resulting in an estimated cost of $15.80 per unit. Estimated sale price is $40.
- Identified and selected a manufacturer for initial production