Methodology

Group leader: responsible for maintaining the group work on schedule, delegates responsibilities to maximize efficiency of design work

Testing team: determine forces needed to damage pins

Passive Design team: explore passive mechanisms to load pins into containers for movement to next operation

Active Design team: explore active mechanisms for pin loading: robotic and sensor control systems.

Conclusion / Proposed Final Solution

Pins are automatically loaded into standard bins, one full row at a time.

Metal bins are fed to loader by conveyor. Bin is fixed into a grip, lowered and tilted to allow for quick filling using a shelf with pins that are pushed into the bin by a hydraulic press.