



Beyond Innovation, LLC



Group Number 6
Midterm 1

Stow-Away Pool Table

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Background

- Successful proof of concept
- Redundant sensors
- Developed without structural analysis
- Not designed to meet tournament specs



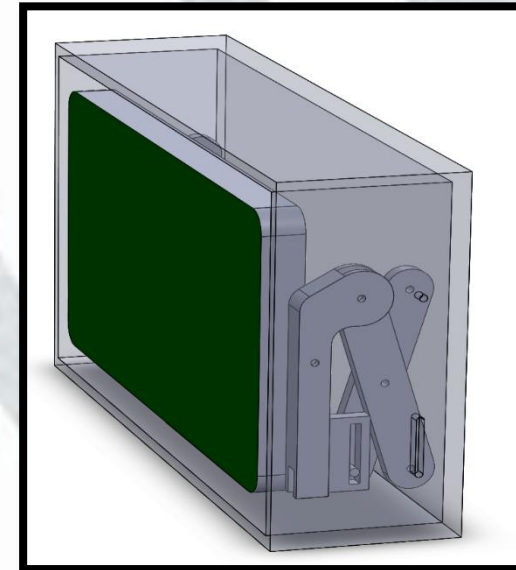
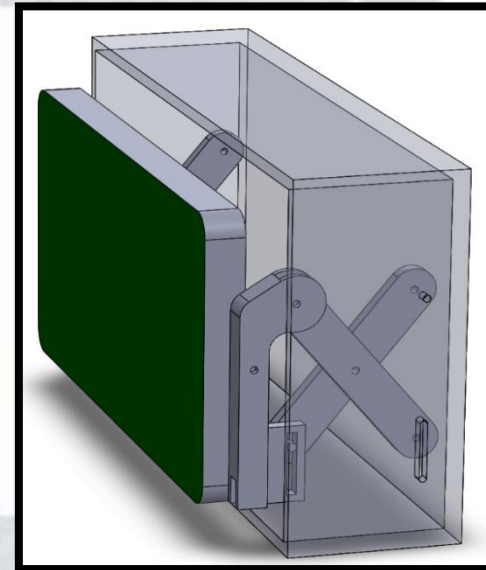
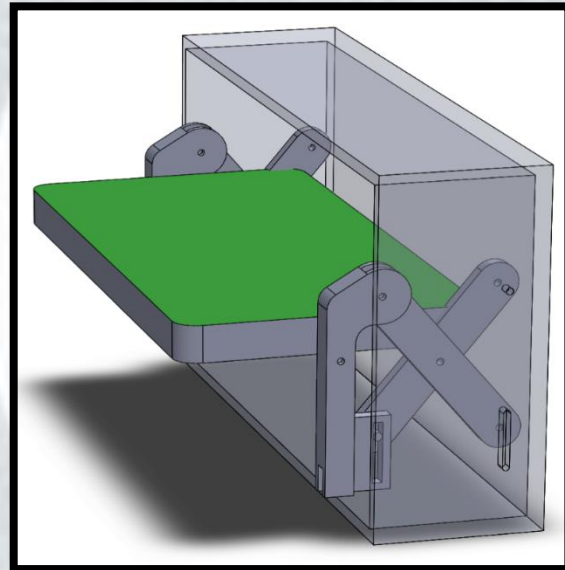
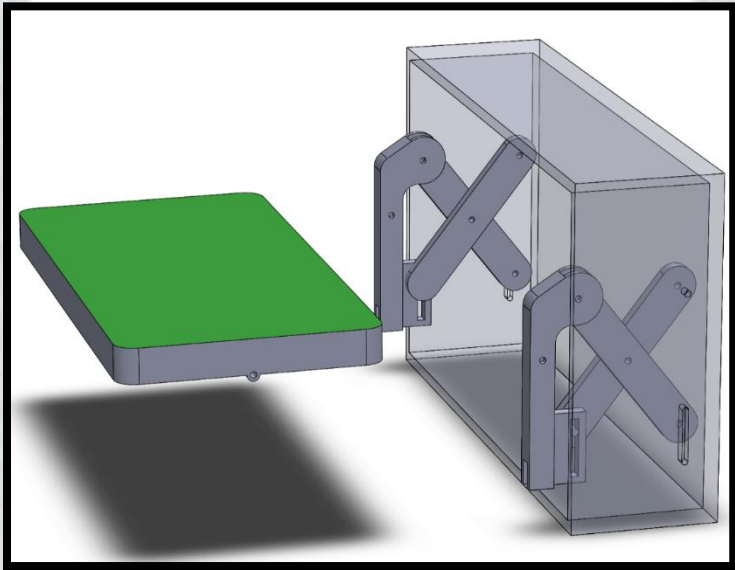
Image credit: Team 6.



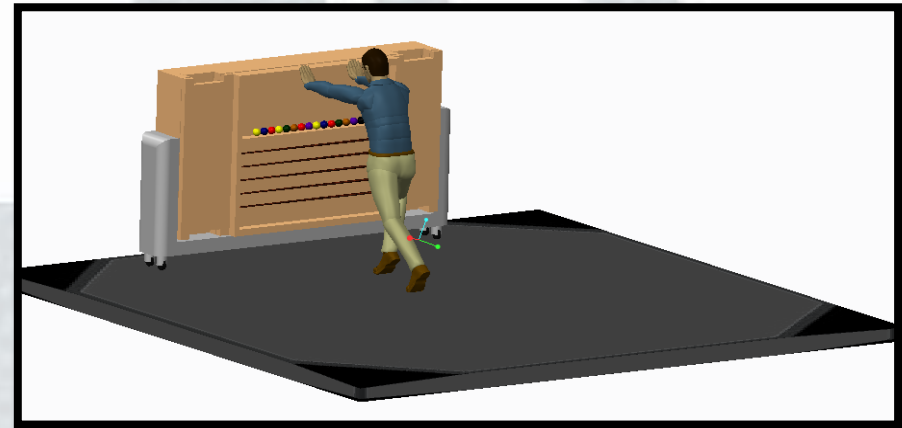
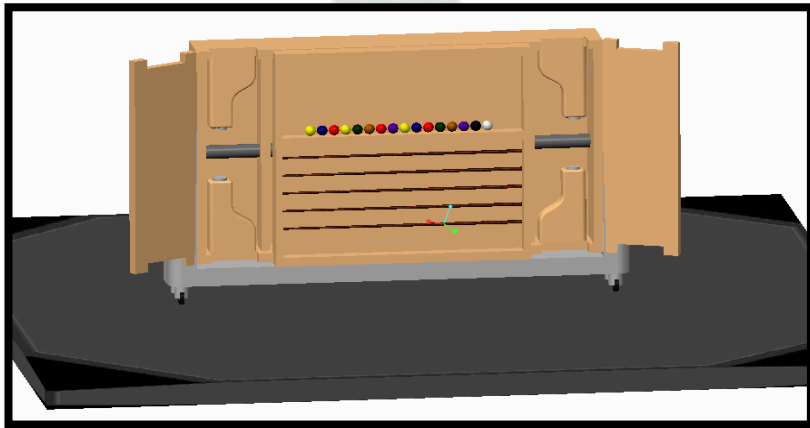
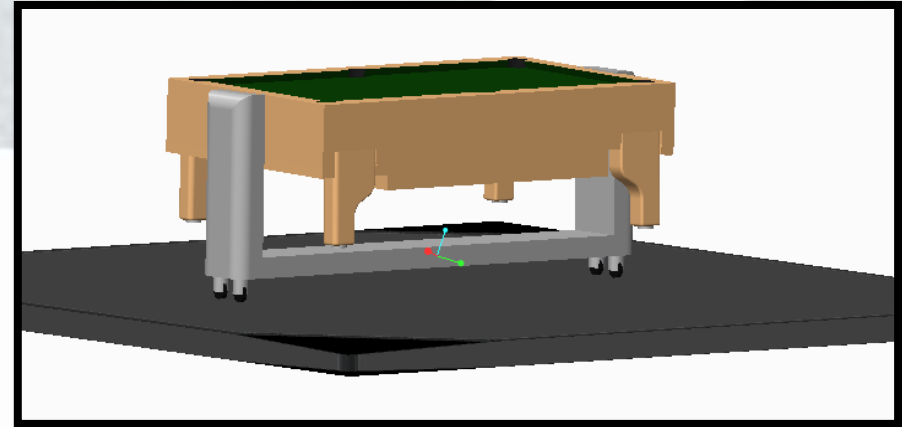
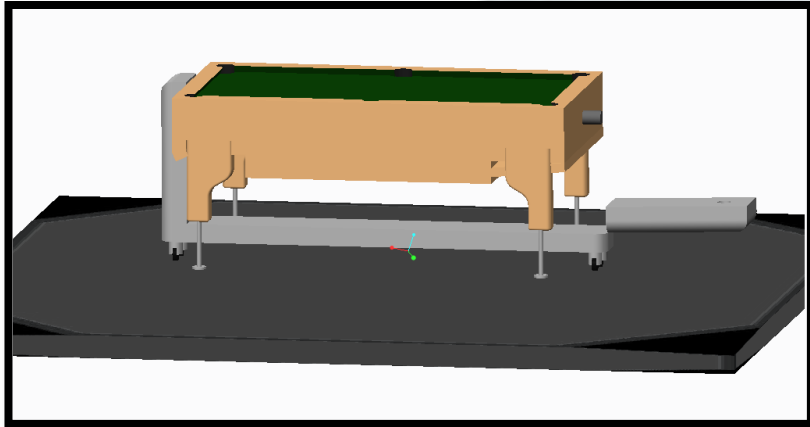
Scope

- High emphasis on marketability of product. Quality, supply chain.
- Improvement of leveling systems performance.
- Verification of compliance with structural/safety requirements.
- Table must meet expectations of tournament players.

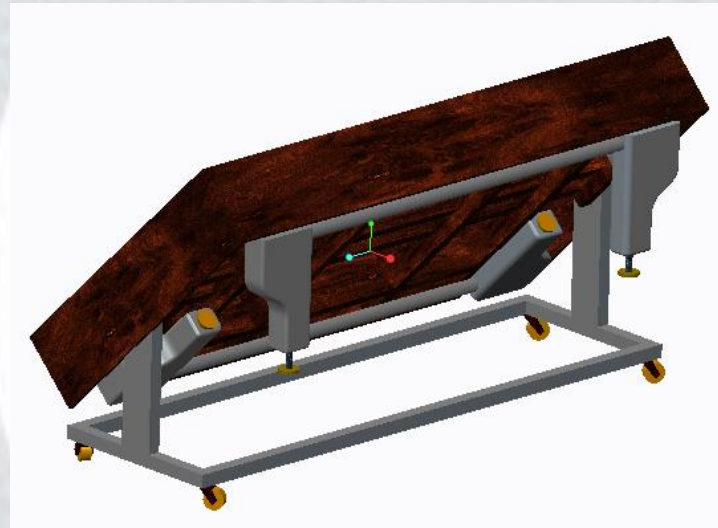
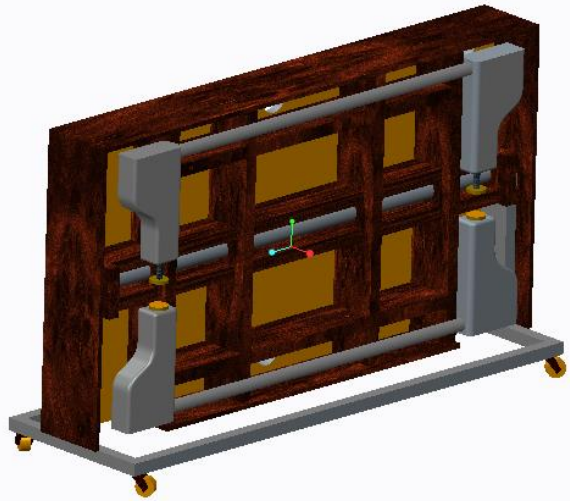
Design 1



Design 2



Design 3



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Design Decision Matrix

TEAM AVERAGE		Criteria						
		Safety	Low Cost	Ease of Manufacturing	Visual Appeal	Familiarity	Low complexity	Total
	Weights	3	1	2	3	2	1	12
Design 1		2.75	1.75	1.75	2.5	3	1.5	28.5
Design 2		1.5	2.75	2.75	1.5	2.5	2.75	25
Design 3		2	2.5	1.75	2.25	2.25	2	25.25



What's ahead

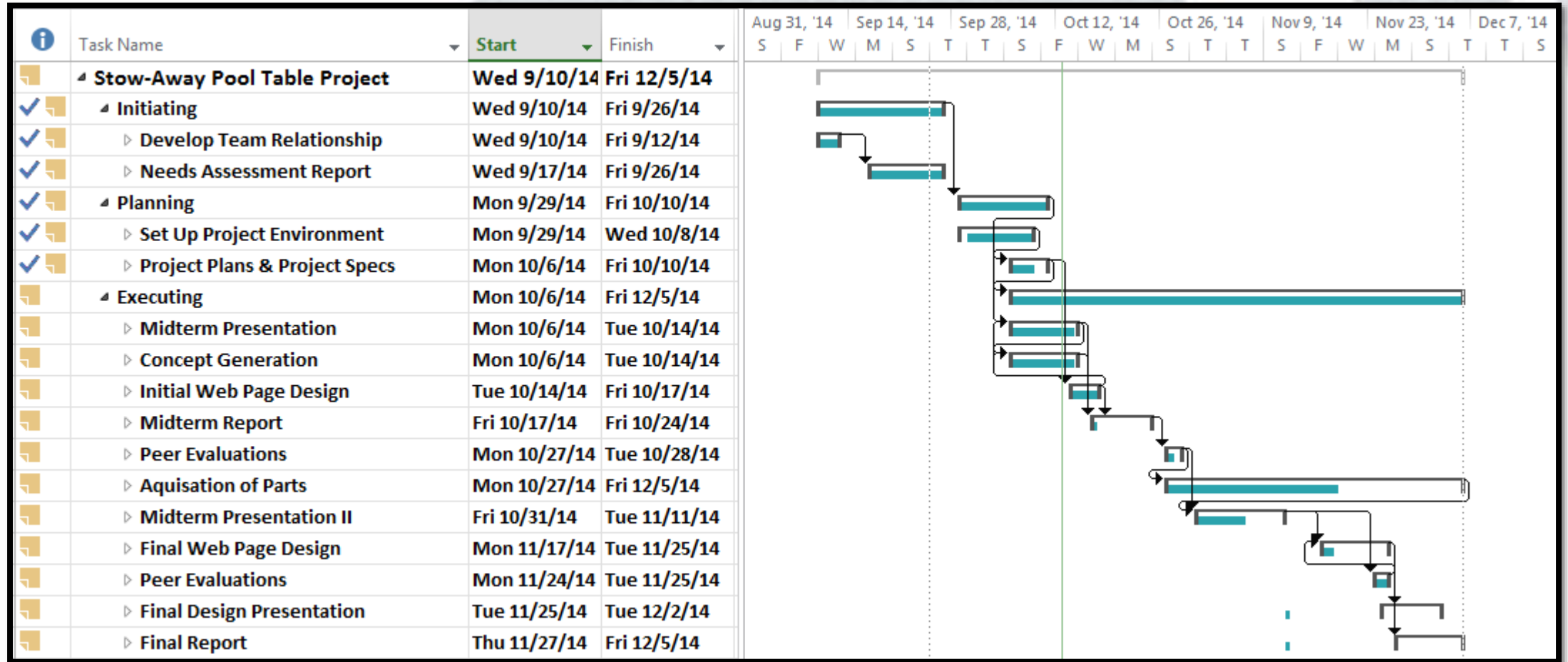
- We will receive the slate earlier than anticipated.
- Fabricate a scaled down version of the chosen design.
- Structural analysis of stow away mechanism.
- Computer modeling and simulation.
- Analysis and redesign of leveling algorithm.



Planning for success

- Take full advantage of mentors' experience
- "Measure twice, cut once."
- We will peer-review our drawings.
- Whenever possible, hardware will be tested separately before implementing it into the system.

Gantt Chart





A Brief Recap

- Change of Original Design Idea
- Brainstormed Possible Designs
- Design 1 Selected
- Revision of Plans & Gantt Chart Updated