

Individual Goal Statement of Jordan Leiber

Roles:

I shall serve as the lead designer for the physical components of the AuBi system. In parallel, I will serve as a member on the User Interface Team as well as the Wireless Charging team.

Physical Design Roll Outputs:

Physical Design Team:

As leader of the physical design team, it is my responsibility to delegate all physical construction tasks to my team members Hayden Fisher, Sanem Leblebici, and Harry Zhu.

Deliverables and Contributions

It is my responsibility to produce finalized versions of all CAD models including, but not limited to: 3D Models, renderings, drawings, and construction animations. This means that, along with my team and Professor Nadovich, all drawings will be revised until proper. It is then my responsibility to give all drawings to, and communicate with the machine shop to ensure all parts are properly produced. Once we have the machined parts, it will be my responsibility to coordinate the construction of the realized robot.

Required designs for a completed system will include, but are not limited to: Base plate, framing, exterior paneling, electronic enclosures, and several component (e.g. monitor, Lidar, etc.) mounting solutions. It falls under my responsibility to work with each of the teams to determine what the physical needs of each system are, and how to best address them.

A weekly breakdown of deliverables is given by:

WEEK	PHYSICAL DESIGN		
OCT 18TH 2021		JAN 24TH 2022	Complete design of locking cargo system complete with CAD drawings and simulations
OCT 25TH 2021	Weight estimation, dimensions, tipping calculations, center of mass	JAN 31ST 2022	Construction of cargo locking system and drawers
NOV 1ST 2021	Development of Schematics, final dimensioning, base plate construction. Generate drawing and prepare all materials for the machine shop.	FEB 7TH 2022	Finish construction and testing of cargo locking system
NOV 8TH 2021	Construction of self-fabricated physical components	FEB 14TH 2022	
NOV 15TH 2021	Assembly of physical robot	FEB 21TH 2022	
THANKSGIVING		FEB 28TH 2022	Integration of all systems
NOV 29TH 2021	Completion of robot assembly (skeleton)	MARCH 7TH 2022	Integration of all systems, Completion of final design
DEC 6TH 2021		SPRING BREAK	
DEC 13TH 2021		MARCH 21TH 2022	Final system testing

User Interface and Wireless Charging Teams

Working with each of these teams, it is my responsibility to take on any, and all tasks that the team leader needs assistance with. Therefore, key outputs will be system dependent, but responsibilities will include, but are not limited to: Firmware and software development, debugging, EM simulation, circuit design, and necessary calculations.