

JHT Adaptive Rower Gantt Chart

Date Updated: 10/25/2022

Task Category	Task Title	Designing		Fabrication/Testing			Final Deliverables		
		10/24-10/28	10/31-11/4	11/7-11/11	11/14-11/18	11/21-11/25	11/28-12/2	12/5-12/9	12/12-12/16
Stabilization Frame	Create fabrication plan for stabilization mechanism prototype	█	█						
	Show and Tell		█						
	Visit JHT to become familiar with materials and fabricate initial prototype		█	█	█				
	Integrate initial stabilization mechanism prototype with limit switch				█		█		
	Create testing plan for stabilization frame				█		█		
	Conduct testing on stabilization frame						█		
	Analyze testing results using statistical analysis						█	█	
	Make adjustments to stabilization frame based on testing analysis							█	█
Mechanical Components of Pulley Plate, Antler, and Console Design	Model the antler and pulley plate design in SolidWorks, making adjustments as needed	█	█						
	3D print the antler and pulley Solidworks Design initially with a lower-cost material and a lower infill due to cost	█	█						
	Test functionality of SolidWorks antler and pulley design with the rower (ensuring the 3D printed design will not interfere with console rotation)		█						
	Reprint the antler and arm design out of a more durable material (tough PLA) and at a higher infill after functionality testing			█					
	Develop press fit design for attaching the console to the stepper motor shaft			█					
	Design motor and circuitry housing				█				
	Print housing				█				
	Create testing plan for pulley plate, antler, and console printed design				█		█		
	Carry out testing on printed design						█	█	
	Complete testing analysis and adjust design based on results						█	█	█
Electrical Components of Pulley Plate, Antler, and Console Design	Purchase motor, power supplies (9V and 12V), Arduino Uno, and motor controller	█	█						
	Develop and troubleshoot preliminary Arduino code and circuit	█	█						
	Generate fabrication plan			█	█				
	Finalize code and circuit			█	█				
	Generate testing plan						█	█	
	Test circuit and code, make adjustments as necessary						█	█	
Team Activities	Show and Tell		█						
	Integrate circuit and code with antler design and stabilization frame			█	█		█		
	Final Presentation and Report							█	█
	Develop Plan for Future Semesters								█

THANKSGIVING BREAK