

**University of Louisiana - Lafayette**  
**Department of Mechanical Engineering**  
**MCHE 482: Engineering Projects I**

**Weekly Progress Report (2)**

To: Dr. Yonas Niguse

Cc: Yonas Niguse, Katie Kaliszeski, Matthew Dubea, Andre Signoret

From: **Full Throttle Engineers** | Katie Kaliszeski, Matthew Dubea, and Andre Signoret

Date: February 5, 2025

Sub: Weekly Progress/Plans

**1. Targets Planned Last Week**

- a. Schedule a date for the team to meet with Mrs. Hanna Pellerin's coworker (the professional welder) for the tricycle to begin assembly
- b. Order the necessary materials/parts for the tricycle to begin the assembly
- c. Disassemble old bikes to see what parts can be used for our tricycle

**2. Targets Completed**

- a. All the necessary parts have been selected and organized to be provided to Mrs. Pellerin for approval to order.
  - i. See Below
- b. After dismantling older bikes for usable parts, the team can save cost and consider use of the following parts/assemblies
  - i. Frame (partially cut and rewelded to fit criteria)
  - ii. Pedals & Crank Arms
  - iii. Seat & Seat Post (from frame)
  - iv. Handlebars and Handlebar grips
  - v. Quill Stem w/ Ball Bearings (rusted)
  - vi. Headset (w/ bearings)
  - vii. Front Fork (threaded for Headset)
- c. Obtained contact (Jack) to coordinate a suitable date to access UL's welding resources (Jeff's Lab) for a crash course session of TIG/MIG welding with an experienced welder from Metal Shark; will likely use footage on KATC to promote event).

**3. Targets Not Completed; Actions Needed to Prevent Incompletion of Future Targets**

- a. The team needs to obtain official documentation for usage of UL's logo for event to enable Hanna Pellerin to use UL's logo for advertisement.
  - i. Mrs. Debbie: "Ask Barhorst."

- ii. Barhorst: “Ask Mrs. Debbie” or “Media Department”
- b. Order the necessary materials/parts for the tricycle to begin the assembly

**4. Plan of Action for the Next Week**

- a. Evaluate reusable material & replace components such as rusted parts, bearings; add grease, modify frame to fit, modify handlebars if necessary.
- b. Receive a welding introduction provided by Mr. Jeff in his lab (MTW 9-11). With the introduction, we can then ask the professional Metal Shark welder to polish these skills and address any concerns in the actual manufacturing process of the tricycle.
- c. Locate Media Department to ensure legal usage of UL Logo.





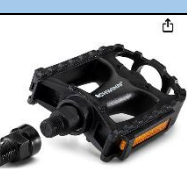

**5. Notable Achievements/Success; Problems/Concerns to Address**

- a. Achievements/Success
  - i. As a team costume contest takes place at the Acadiana 500 Tricycle Race event, the team has decided on a team costume to participate in the competition.
- b. Problems/Concerns
  - i. Sponsoring Companies: Incentive for companies to Sponsor events (Acadiana 500) due to Tax-exceptions for things like charitable events, donations, religious or educational contributions, etc

### Sourced Parts Considerable for Final Design

Part	Link	Image	Notes	Price
Front Wheel Assembly	<a href="#">Link</a>		Front Wheel Assembly for the Razor DTX Drift Trike- crank arms included	\$29.99
	<a href="#">Link</a>		MADD GEAR DRIFT TRIKE - FRONT WHEEL ASSEMBLY	\$49.99
	<a href="#">Link</a>		Dynasty front wheel kit	\$99.99
Stem COMMON QUILL DIAMETERS 22.2mm 25.4mm 28.6mm	<a href="#">Link</a>		Threadless step – clamps to outside of steer tube.	\$14.99
	<a href="#">Link</a>		FOMTOR 25.4 stem 45mm Short Bike Stem for 1' Handlebar Mountain Bikes, Road Bike, Fixed Gear Bicycle, BMX, MTB	\$15.99
	<a href="#">Link</a>		MTB Stem 31.8 Stem 60mm 25 Degree Wake Mountain Bike Stem Short Handlebar Stem for Most Bicycle, Road Bike, MTN, BMX, Fixie Gear, Cycling (Aluminum Alloy, Black)	\$16.99
Seat	<a href="#">link</a>		Fits any standard seat post	\$20
	<a href="#">link</a>		Fits any standard seat post	\$14
	<a href="#">link</a>		Fits any standard seat post	\$15

Headset	<a href="#">Link</a>		BUCKLOS 1-1/8 Bike Headset MTB Threadless 34 44 44-50.6 44-55 44-56 41.8-52mm, Straight Tapered Tube Mountain Bikes Road Bicycle Double Sealed Bearings Headsets, for Frame Fork Expander Plug Star Nut	\$19.99
	<a href="#">Link</a>		1" THREADED 24 PALMS HEADSET	\$70.00
	<a href="#">Link</a>		Thinvik Bike Headset 1-1/8 inch Threadless MTB Bicycle Headsets, 34 44 44-50.6 41.8-52 44-55 44-56mm Head Tube Straight Steerer Fork Bearing for MTB Road Bikes, Black	\$14.99
Back Tires	No link for this one		Esport Scooter has these 10 inch tires they can sponsor us.	Free
	<a href="#">Link</a>		10" Heavy Duty Tire and Wheel 2 Packs 4.10/3.50-4 Pneumatic Tire Solid Rubber Tire with 2.25" Offset Hub 5/8" Axle Bore Hole and Sealed Bearings for Gorilla Cart Tires/Dolly Wheels/Hand Truck Wheels	\$24.99
	<a href="#">Link</a>		BRIDGELAND 10 in. No-Flat Tire with Universal Bearing Kit (2-Pack)	\$34.00
Coaster break (if not included in front tire assembly)	<a href="#">Link</a>		Bicycle Coaster Brake Hub, 36 Hole Bike Brake Rear Hub, Easy Installation Backwards Brake, Bike Rear Hub for Fixed Gear	\$21.99
	Capitol Cyclery		The last option would be to go to capitol cyclery and buy a coaster from them.	\$25-45
	<a href="#">Link</a>		Wald 5.25-Inch Rise MTB Handle Bar, Chrome 27.1 #803	\$27.59

<b>Handlebar</b> 	<a href="#">LinkD</a>		Wald 869 Hi-Rise Cruiser Bike Handlebar (23.5-Inches Wide, Chrome, 10.5-Inch Rise) This handlebar can be cut.	\$36.50
	<a href="#">LinkD</a>		Sunlite Medium Hi-Rise	\$31.00
<b>Pedals</b>	<a href="#">Link</a>		Bike Pedals 9/16" Lightweight Non-Slip Bicycle Platform Pedals Fits Most Adult Bikes Shock-Absorbing E-Bike Pedal Non-Slip & Durable Lightweight for Most Adult Bikes & MTB	\$8.99
	<a href="#">Link</a>		Schwinn Bike Pedals, Alloy or Composite Options, Fits Most Adult Bikes for Men and Women, 9/16 Inch Compatible, Bike Pedal Replacement	\$9.99
	<a href="#">Link</a>		Bike Pedals Mountain Bike Pedals Aluminum CNC Bearing Bicycle Pedals, Road Bike Pedals with 16 Anti-Skid Pins Lightweight Platform Pedals for BMX/MTB Bike 9/16" Spindle	\$9.86