

Jibebe Internship 2022

Progress report

Name: Paul Moses

Tasks completed last week

- • [#46] Acquisition of lithium ion battery for e-tricycle – This issue was finally resolved and the manufacturer is to supply both the charger and battery. This being resolved will smooth progress in the project without further delays.
- • [#44] Motor sizing for shujaa tractor - calculations was done to by the team to meet the expected horsepower of 16hp. This will be an improvement since the current tractor has 10.5 hp. A 12KW motor will be up to the task. Progress towards acquiring of the necessary quotations are ongoing.
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Tasks in this week

- [#47] Clarification on battery sizing and acquisition of required quotation.— Have meeting with the entire team to decide on all consideration to come up with an accurate load requirement of the tractor and determine the maximum weight of implements that the tractor can comfortable support

Total estimation of weeks: 12

Week	Tasks	Reporting	Hrs	Month
5 - Requirements review				
5.1	Finalize on battery acquisition for the Tricycle	None	20	Feb
5.2	Finalize on motor and torque requirements for the Tractor	None	8	
5.3	Clarify best choice for motor orientation for use in Tractor to allow for automation	Team meeting to review the best course of action	5	
6 - Research				
6.1	Research and recommend best motor for our specific use case in the Tractor	Electric Team Meeting	20	Feb
6.2	Get experimental data for motors and run simulations for verification	None	20	
7 - Testing				
7.1	Alpha testing of newly arrived battery for the tricycle.	Electric Team Meeting	20	Feb
7.2	Testing of integration with other components of the electric subsystem	None	25	
8 - Deployment				
8.1	Deployment of the electric subsystem of tricycle to finalized Tricycle	None	20	March
8.2	Fixing of any issues that may arise during Integration	None	20	
9 - Testing				
9.1	Alpha testing of newly arrived components for the tricycle.	Electric meeting	16	March
9.2	Getting experimental results of the components and NDT to validate correct operation and performance under load	None	24	

10 - Integration				
10.1	Integration with other subsystem	Team meeting	40	March

11 - Testing				
9.1	Alpha testing of entire assembled tractor	Team meeting	40	March

12 - Deployment				
12.1	Deployment of Shujaa Tractor	Team meeting	40	April