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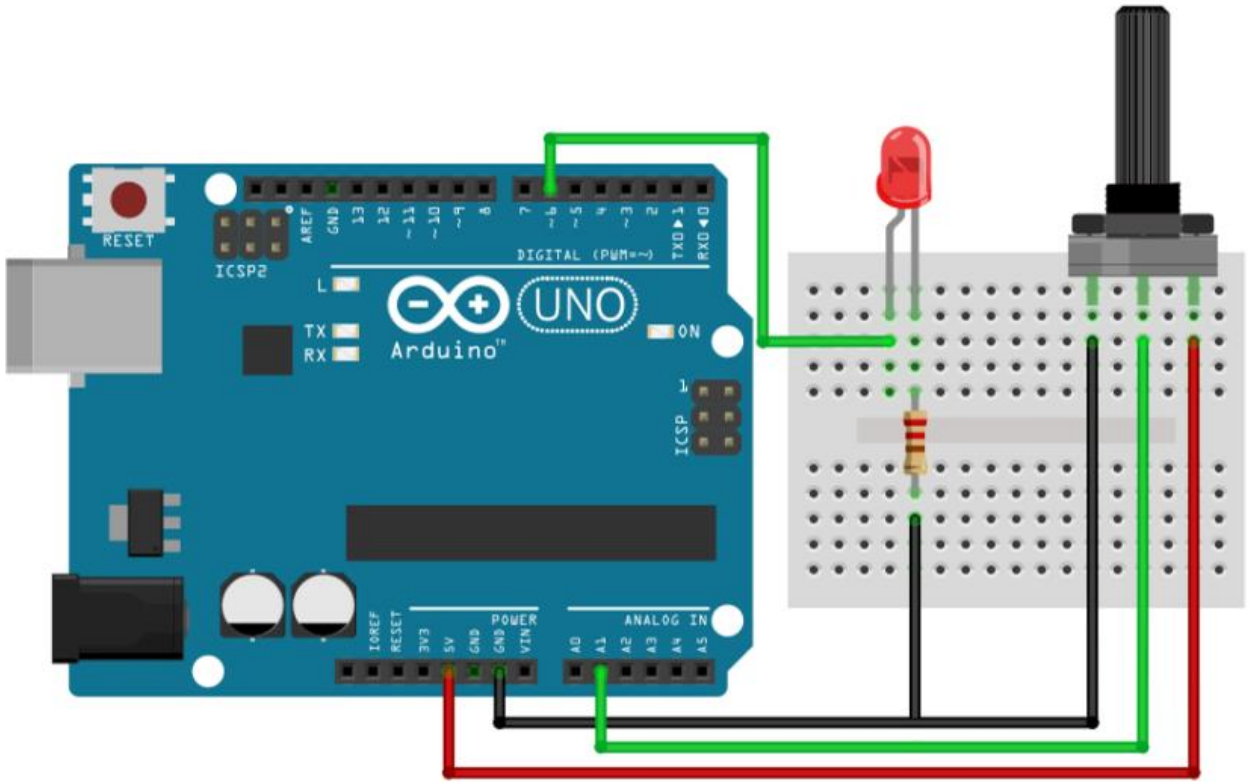
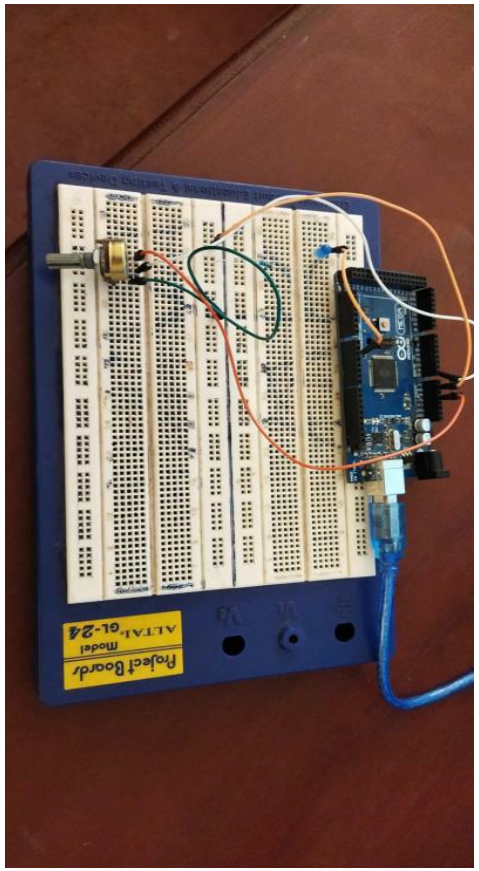
JIBEBE INTERNSHIP 2022

WEEKLY REPORT: ELIAS HERUIYOT

[#86] Linear acceleration control Issues completed: the electrical team came up with a simple architecture for acceleration control. The acceleration can be calibrated by reprogramming the microcontroller to the desired value.

[#85] State of charge monitoring for the tricycle battery: the electrical team was able to write a program and construct a circuit responsible for monitoring the battery SoC.





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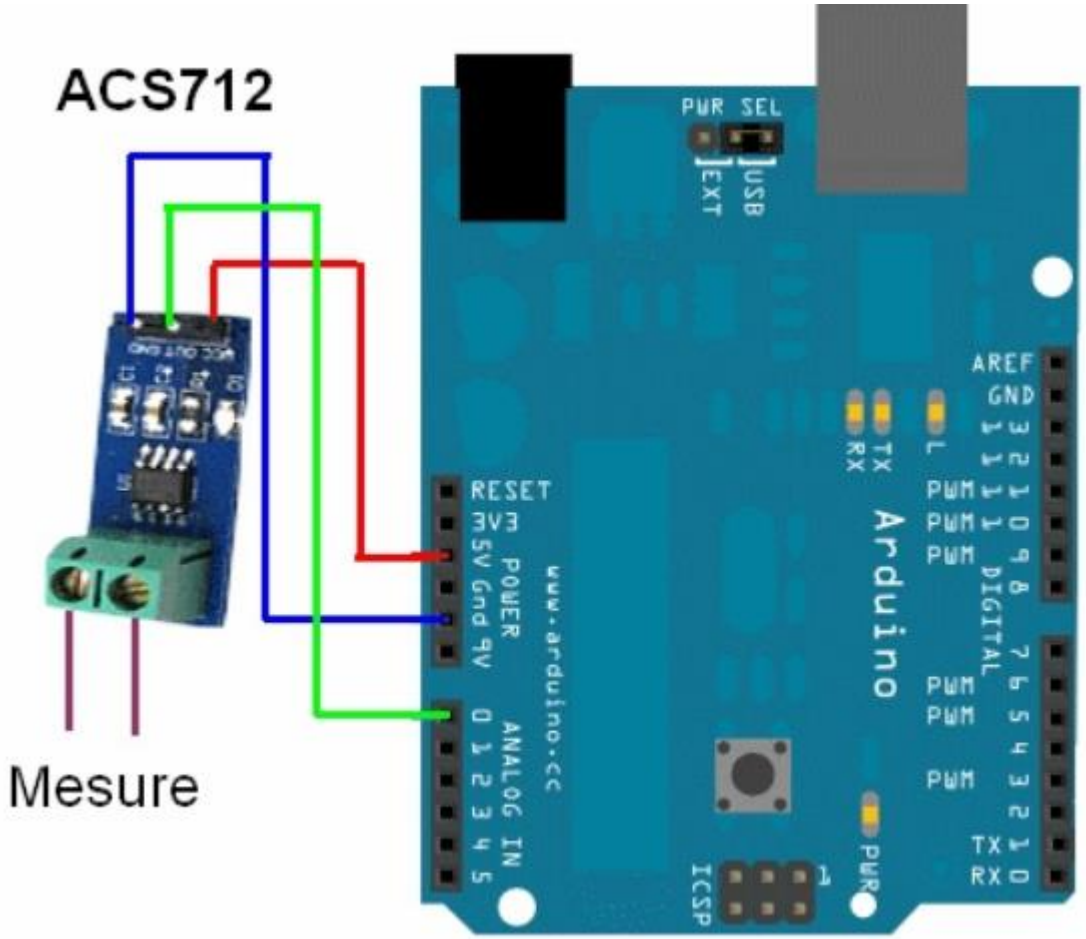
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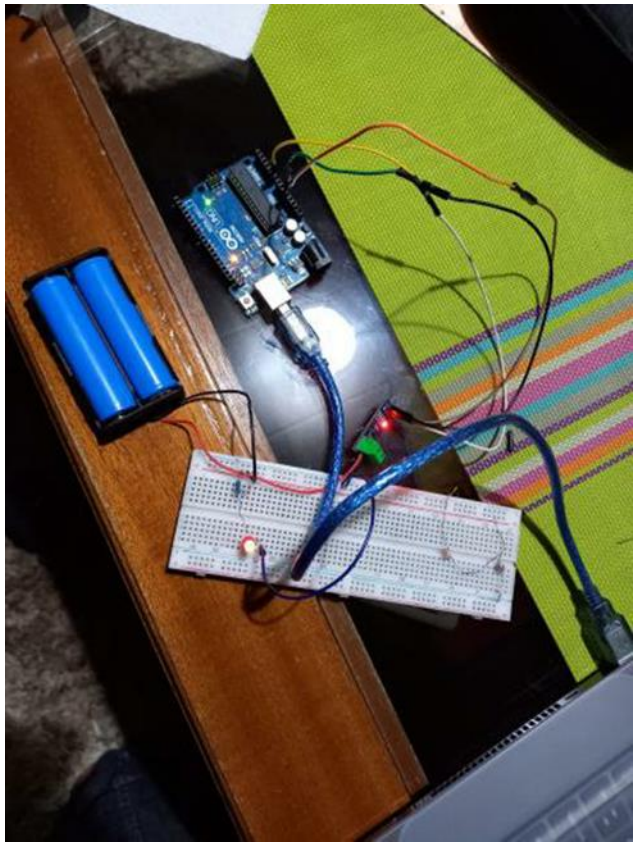

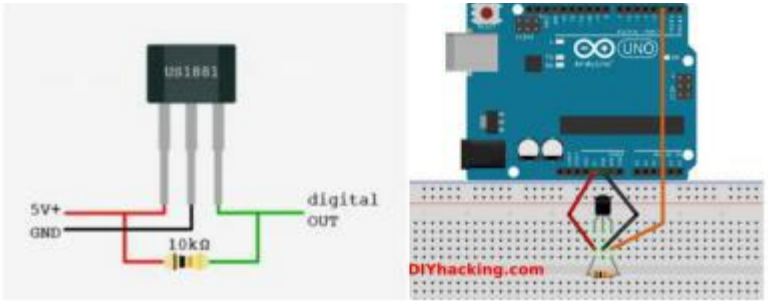
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PROGRESS REPORT

[#87]Speed meter: the electrical team was able to write the program and construct a circuit responsible for measuring the speed of the wheel.

TASKS THIS WEEK

[#84] PCB drawing and fabrication

[#84] Mechanism of motor stopping on brake press

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 subsytem	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 resuts 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

Thank You