

Sustainable

Mobility

For Persons Living with Disability in West Africa

Helen Wiley, Katie Bunch, Dylan Derstine, Matthew Higgs, Faith Kerlen, and Emma Workman

We believe that everyone should have access to a means of mobility in order to contribute to their household and society so that they and their families recognize their incredible worth as a child of God.

Mission

The Sustainable Mobility Project empowers people living with disabilities in Burkina Faso allowing them to fully participate in family and community life. Disabilities often restrict people from moving independently or pursuing an education or a job. With the development of the Collaboratory 3-wheeled off-road wheelchair design, our team is showing more people Christ's love by helping them to move independently and reducing the stigma surrounding their disabilities. We hope that through this project, people will more readily establish their identities in Christ, not their disabilities.



Partner

SIM

SIM, Société Internationale Missionnaire, is an international Christian organization that glorifies God by making disciples of the people in Burkina Faso as they proclaim Jesus Christ and minister to human needs.

Françoise Pedeau

Françoise Pedeau is a missionary serving in Fada, Burkina Faso. She is originally from France but has served in Burkina for about 33 years. She has a heart to help persons living with disabilities, especially children. She has been a constant partner and support for the Sustainable Mobility project since it has been formed in 1999.

This Year's Work

To be sustainable, the team is developing image-driven fabrication guides to allow our partner to be independent of the Collaboratory.

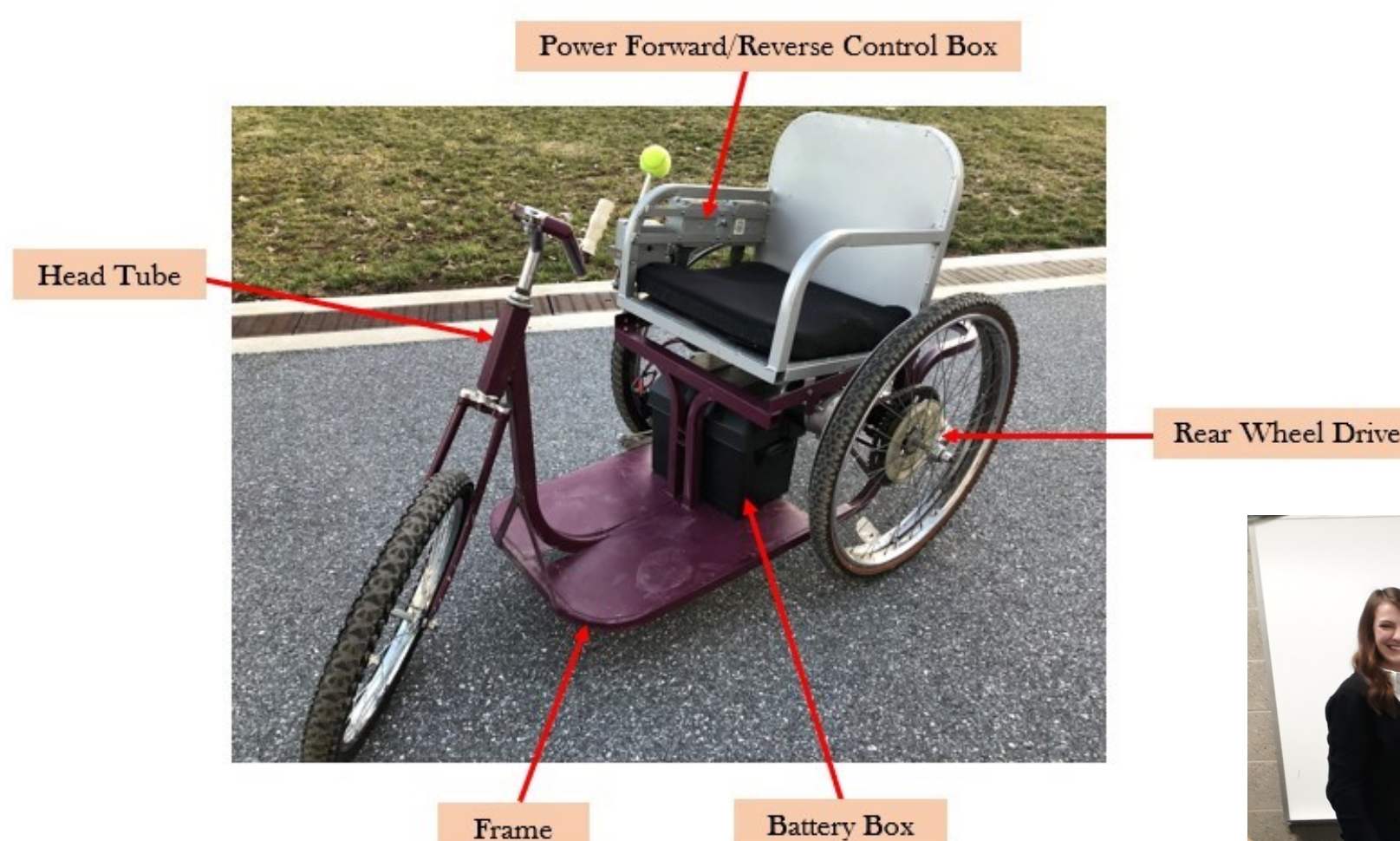
Developed Style Guide

Made style guide for document consistency

Refined Component Documents

Edited documents to fit style guide

- Power forward/Reverse Control Box
- Rear Wheel Drive
- Battery Box
- Frame
- Head Tube



Streamlined Documentation Process

Developed an organized process that includes reviewing by build prior to revisions by the Student Project Manager, Project Manager, and Chief Engineer.



Résumé

Ce document précise les procédures nécessaires pour fabriquer et assembler le tube de direction pour le tricycle électrique. Le tube de direction est soudé au cadre pour permettre une rotation entre la fourche avant et le guidon (Images 1 et 2). Les instructions pour les assemblages du tube de direction, fabriqués sur place et avec des tubes disponibles au Burkina Faso, se trouvent dans la Méthode A. Les instructions abrégées pour les tubes de direction fabriqués aux États-Unis, avec les tubes disponibles aux États-Unis mais peut-être moins disponibles au Burkina Faso, se trouvent dans la Méthode B. On utilise la Méthode B principalement pour fabriquer des prototypes aux États-Unis. Un plan d'assemblage et une liste des pièces avec dimensions suivent.

Welding Fixture

Project Management class team modified the current welding fixture.



French Translation

Team of French majors translated fabrication documents.

Future Work

Field Work

The team is looking to reconnect with our partners, provide necessary tools, and test the fabrication documents.

Battery Testing

The team wants to develop a procedure for testing batteries reliability in country.



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