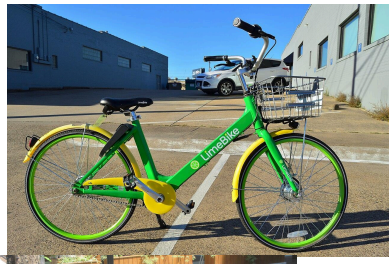
Green Transportation Project

Green Up and Go

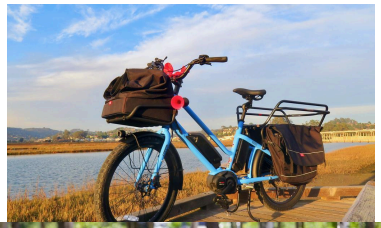


Objective: Integrate your knowledge of physics and the engineering design process to develop a short range personal transportation solution which is designed to: 1) help user make local trips, 2) be economically and mechanically viable, 3) be safe and user friendly, 4) utilize both human and electro-mechanical power sources, 5) make a positive impact on the environment.

Project Outcomes:

- Demonstration of Physics Principles for Mechanics and Energy
- Application of the Engineering Design Process
- Complete Usable Electric Bicycle for the Community

Purpose: For students to apply their knowledge and innovation in refurbishing an existing bicycle into an electric bicycle that benefits the community.



Major Deliverables & Timeline:

- **Week 1**
  - Define Requirements and Brainstorm Designs
  - Assess the initial bicycle.
- **Week 2**
  - Detailed Design and Manufacturing Components
  - Understand the Electronics
- **Week 3**
  - Build the bicycle and test functionality.
  - Optimize the design.
- **Week 4**
  - Final build, final design and test.
  - Create portfolio of their engineering design process
- **Final Presentation**
  - Present in a mini-exhibition, open to students and community members
  - Present at CCTE Showcase

****Timeline is approximate**

Obstacles

- Time Management - Stay on Track/Make use of all Classroom Time
- Calculation Confusion - Ask for Help