BEVISIONEERS

THE MERCEDES-BENZ FELLOWSHIP

Project Checkpoint 9
Theory of Change

Vision Statement:

I envision a future where we can be proud that **every pedal stroke and drop of sweat generates clean energy**.

Mission Statement:

Enerdrais empowers individuals to contribute to a greener future by **harnessing the energy generated from fitness activities in gyms and public bike systems**, transforming human effort into engines of sustainability that powers and inspires communities.

Pathway for Sustainability :

Enerdrais creates a Pathway for Sustainability by focusing its intervention on the Entry Point of **"Affordable and Clean Energy“**, leveraging Human Well-being (promoting active lifestyles), **Science and Technology** (through AI-powered energy optimization and IoT-enabled devices), and **Sustainable Cities & Communities** (integrating with existing urban infrastructure) to transform fitness activities into a valuable source of renewable energy.

Energy Generation Prototype With Minimum Weight and Maximum Electrical Generation for population consciousness about how we can **harness the energy we generate** and **use it for more sustainable lifestyle**

- Simulation of all the Machine and its Functionality
  - Prototype CAD Model
    - Model All Parts
    - Choose Materials
  - Impact and Weight Supported by the Machine
    - Fitness Activity
    - Weight of User
- Optimized Energy Generation
  - Maximized Rotation for Better Energy Generation
    - Calculate the Generator's Position
    - Choose the Number of Generators
  - Correct Motor Chosen for Energy Generation
    - Contact Gyms
    - Electrical Trials

Inputs = Gyms, Public Bike Systems, CNC Machines, 3D printing, Mechatronics.

OutComes: Green fitness centers or public bicycle transportation systems that generate clean energy, which can be used in rural locations without constant electrical power or to feed the gym's electrical grid.

OutPuts: Machines used to harness the mechanical energy currently wasted on fitness activities like gyms or bicycle public transportation systems.

Activities: Contact Gyms to know their Electrical Usage ⚡ → Perform Electrical Trials → Choose the Correct Motor Considering Low Weight and Maximmum Energy Generation → Calculate Necessary Prototypes for the Gym’s Profit Based on Energy Generated by Each One → CAD Model All Parts of the Prototype → 3D Print the Necessary Parts → CNC the Structure Aluminum Parts → Assemble the Prototype.