BEVISIONEERS

THE MERCEDES-BENZ FELLOWSHIP

Project Checkpoint 8
Prototyping Chronicles

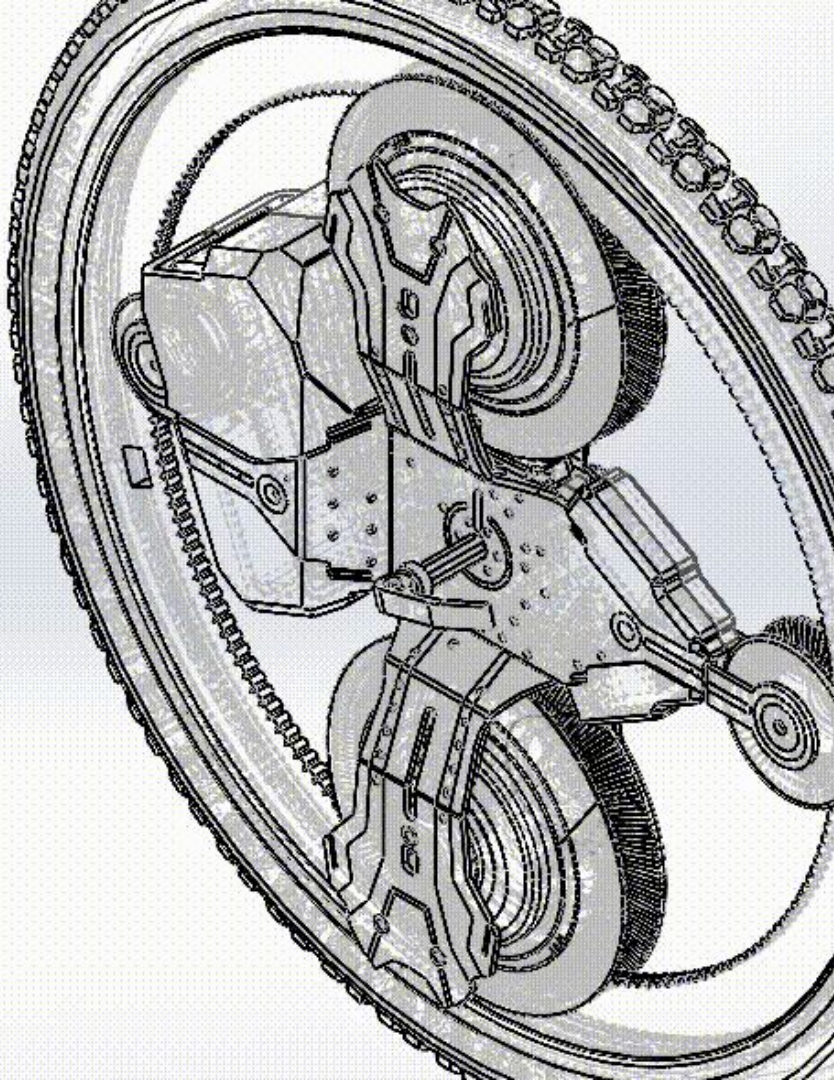
How to

Project Checkpoint 8: Prototyping Chronicles

Showcase your failed prototyping attempts, reflect on the lessons learned from the first attempt, and demonstrate how each failure brought you closer to a refined solution.

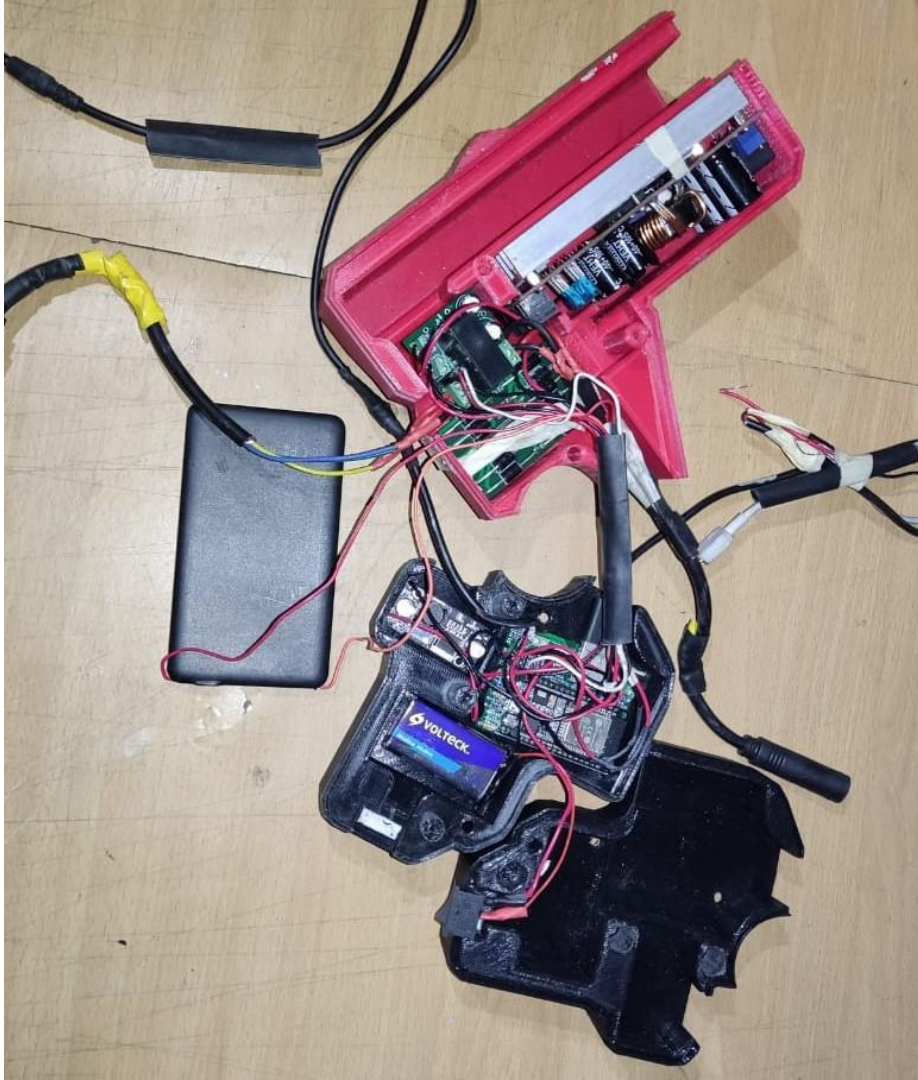
Documenting and reflecting on your versions of prototype gives your voice credibility and depth.

This Checkpoint can be presented in either **a slide deck** or **video format**. You can share your video in a hyperlink in your slide deck.



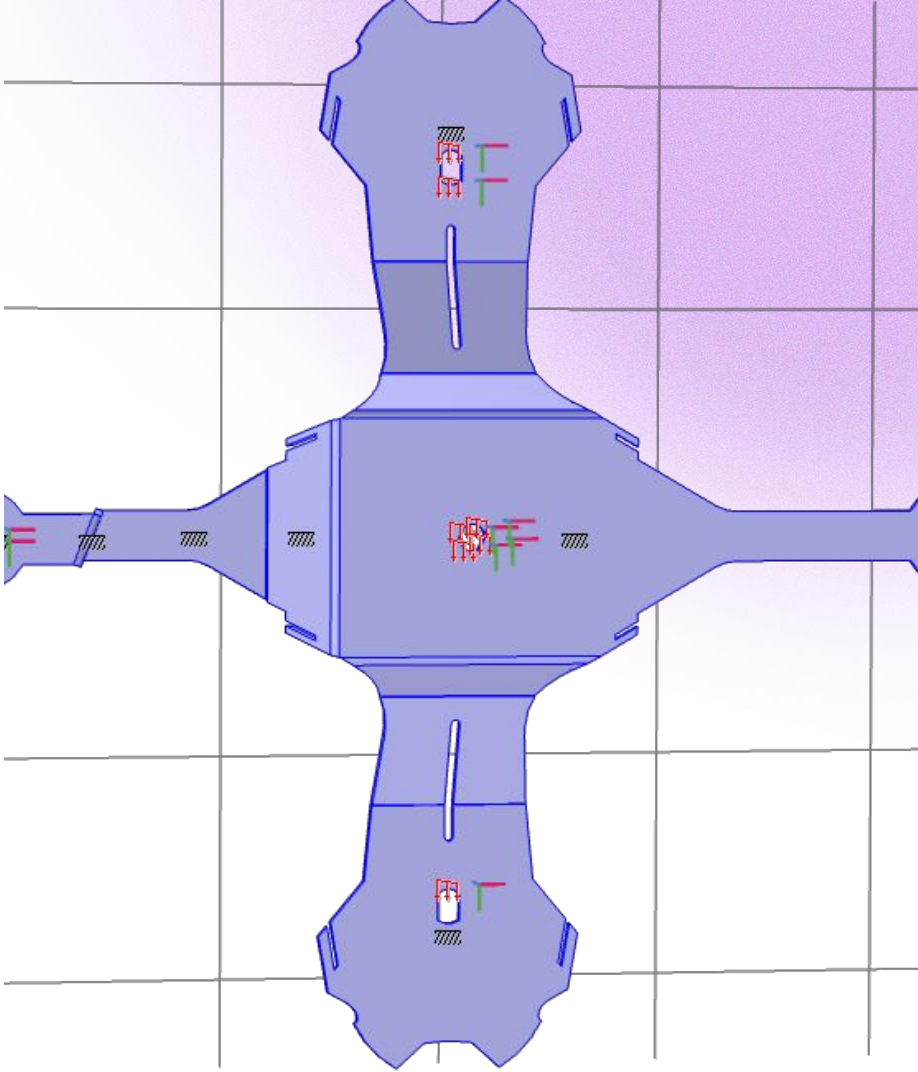
Project Checkpoint 8: Prototyping Chronicles - ⚡

- **What we hoped to achieve.**
  - In this part the collection and conditioning system for electrical energy was created.
- **Why didn't the attempt work?**
  - It’s function was to collect, convert and maintain the level of voltage and current from the electrical energy generator.
- **Key lessons learned from each failure.**
  - What we learned from this failure was not to try to cover 10 solutions in one go, but to focus on one and move forward from there.



Project Checkpoint 8: Prototyping Chronicles - ⚙️

- **What we hoped to achieve.**
  - In this part we tried to calculate and test if the mechanical structure could support a maximum weight of 120 kg (264.5 pounds), considering impact situations.
- **Why didn't the attempt work?**
  - Because we simulated the mechanical design with CAD software like SolidWorks and COMSOL Multiphysics.
- **Key lessons learned from each failure.**
  - The mechanical design can be very well made with software but the manufacture has to be tested with cardboard or physical models first.



Project Checkpoint 8: Prototyping Chronicles - ♻️

- **What we hoped to achieve.**
  - This was a very fulfilling but difficult part of the development because we had to learn to use a 3D printer in record time.
- **Why didn't the attempt work?**
  - It worked because we broke down, tested, bought materialis, add ons, and watched tutorials in a very persistent way until we succeeded.
- **Key lessons learned from each failure.**
  - Persistence and research is key to create something new.