# FLINT PAPER BATTERY



# PROJECT OBJECTIVES

This project aims to:

- 1. Create a sustainable replacement for lithium batteries at almost half the cost of the ones in the market.
- 2. Design a flexible battery that can bend or conform to various shapes and applications with improved safety features.
- 3. Collaborate with design and manufacturing partners to accelerate adoption and promote awareness by building paper batteries for various applications.
- 4. Continuously innovate and improve the battery's performance and environmental impact.
- 5. Facilitate commercialisation and widespread availability of the paper battery.



### PROJECT SUMMARY

As the world moves toward a more sustainable future with the use of more renewables, we face the challenge that the batteries we use currently are not renewable. That is because current battery technologies are highly toxic to the environment and are limited by their design in terms of safety and cost.

Flint aims to launch an eco-friendly rechargeable battery made of cellulose paper, zinc, and manganese. This paper battery is eco-friendly as it is wholly compostable at the end of its life cycle, and is almost half the cost of regular lithium batteries. The paper battery is also flexible as it can be bent into unique shapes, and is much safer than lithium batteries — opening up possibilities to design and manufacture gadgets with it.

The team has the working prototypes ready, R&D completed, and extensive progress for commercialisation is underway to increase the efficiency of this battery – to either meet the same standard of lithium batteries or surpass it.



# **PROJECT OUTCOMES**

- 1. Development of a functional and commercially viable eco-friendly rechargeable battery made of cellulose paper, zinc, and manganese that has an energy density which is up to 70% comparable with lithium batteries.
- 2. Successful production of compostable batteries at approximately half the manufacturing cost of regular lithium batteries.
- Establish collaborations with a minimum of 3 design, manufacturing, or accelerator organisations to leverage our flexible and customisable battery technology, thereby unlocking fresh opportunities for innovative gadget design and manufacturing.

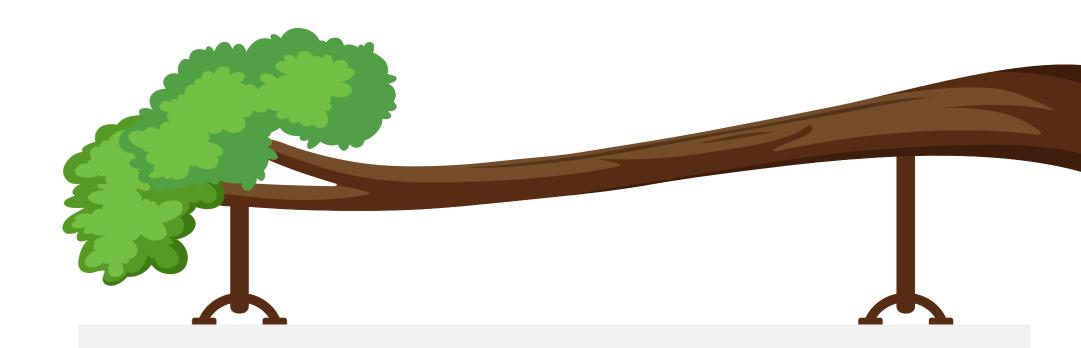


Bachelor in Mechanical Engineering (Year 3)

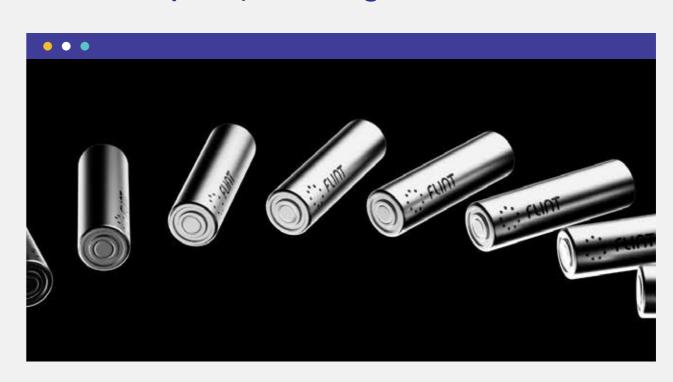
**COLLABORATION WITH** 







Flint's Paper Batteries Meet the Same Standards as Traditional Lithium Counterparts, Including the Versatile 18650 Model



This Meticulously Crafted Paper Battery Showcases Its **Remarkable Customisability Potential** 







#### **Linkedin Profile of Carlo Charles**







PART OF



ORGANISED BY





