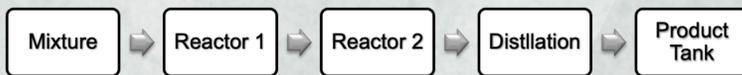




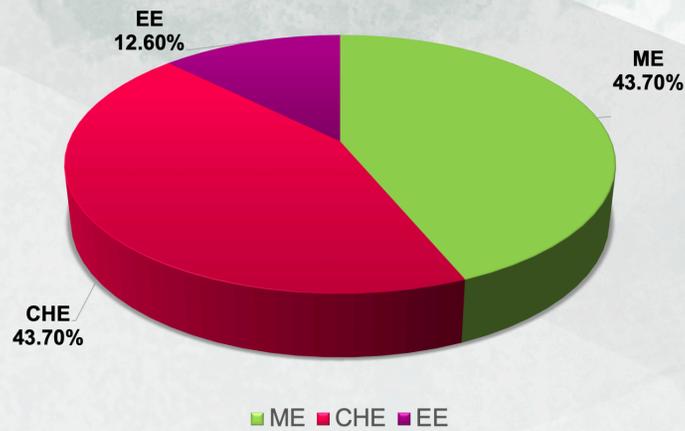
Introduction

Polyethylene, typically derived from fossil fuels, leads to greenhouse gas emissions. This project proposes a portable device using AI to convert sugarcane, a renewable biomass, into ethanol for sustainable polyethylene production. The device will feature an advanced algorithm to enhance efficiency and reduce costs, operating even in remote, low-electricity areas. It will include sensors to monitor operations and display the device's status



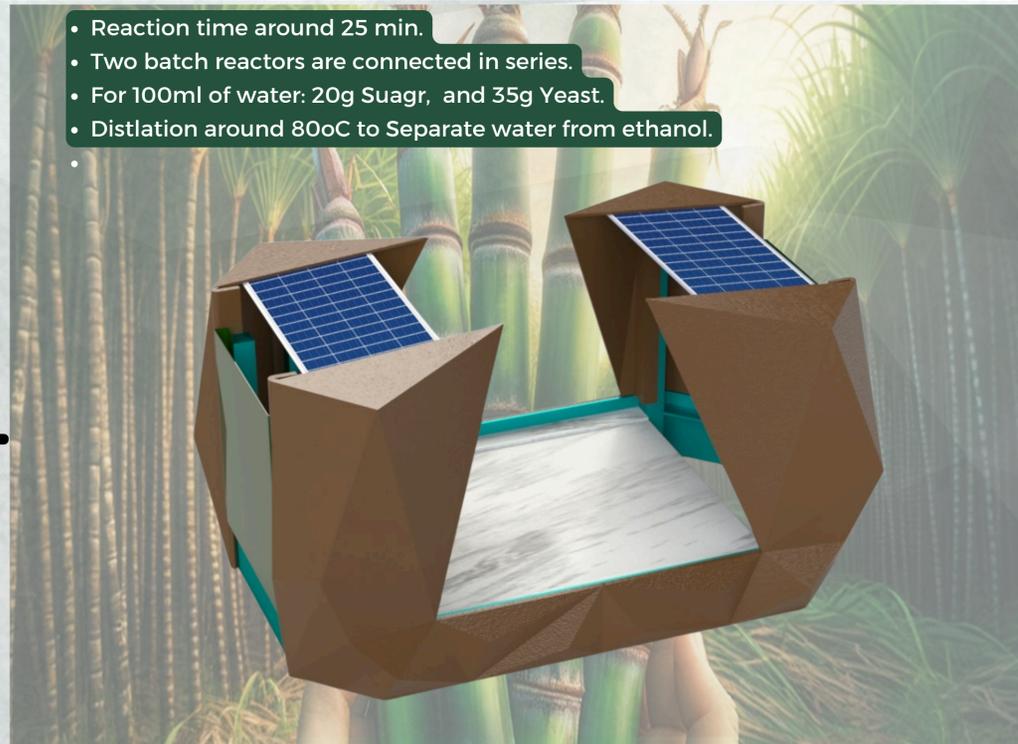
PRODUCT COST

Total COST : 5998 SAR



PRODUCT VALIDATION TO OPTIMUM CONDATION

- Reaction time around 25 min.
- Two batch reactors are connected in series.
- For 100ml of water: 20g Suagr, and 35g Yeast.
- Distlation around 80oC to Separate water from ethanol.



AREA OF THE PROTOTYBE

PRODUCT SPECIFICATION

- Weight = 40 Kg
- Batch Reactor with Volume = 1.0L
- Dimension: [redacted]
- 95cm X 57cm X 53cm

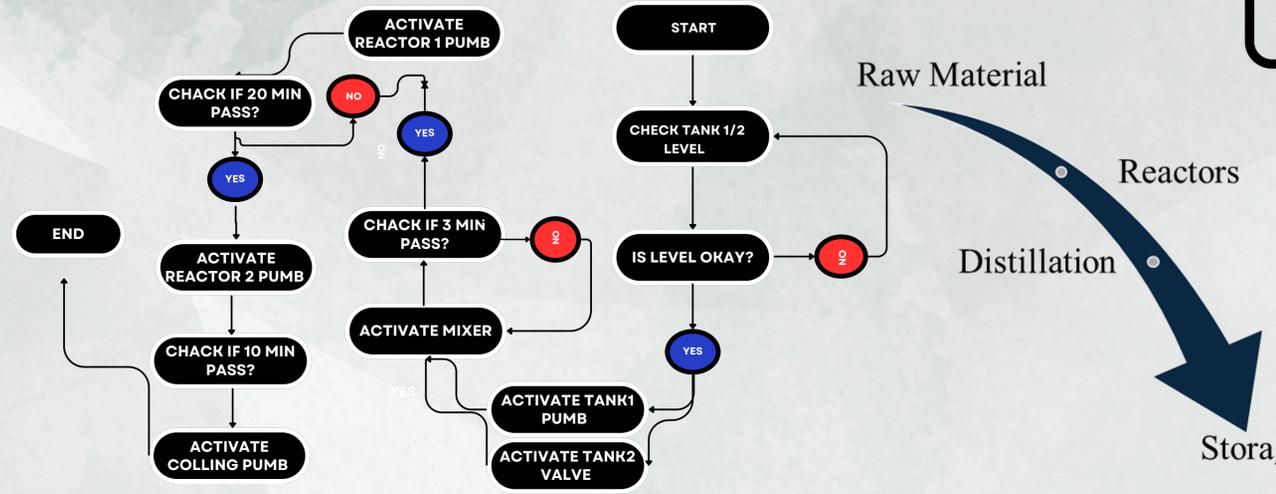
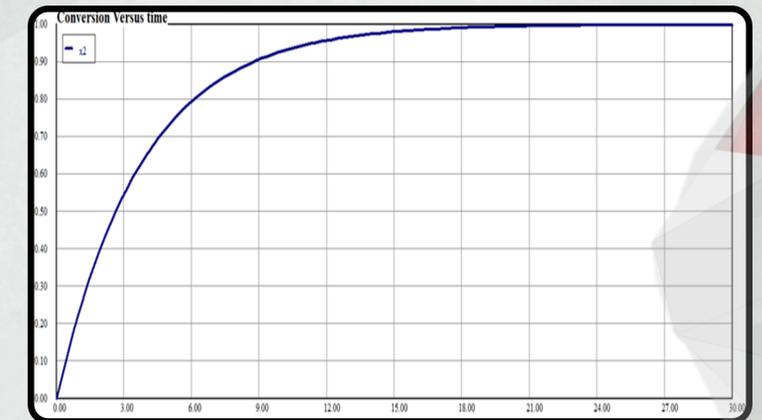
PRODUCT CONSTRAINS

- Operational Conditions Temperature, and Time
- Weight of prototype
- Detection range & sensitivity of sensors

PROJECT IMPACT AND NOVELTY



GRAPH OF CONVERSION



Abdullah Cadura (ME)



Abdulmalik Aladsani (ME)



Abdullah Alrajeh (CHE)



Waleed Alanazi (CHE)



Nawaf Marran (EE)



Ammar Alkarmo (EE)

For More Details

