

# Project I Description

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**Project Name:** Compact Waste Sorting Machine

**Sponsor:** ARCENCIEL – UNICEF - LAU

**Team Size:** 4 MEE Students

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## Project Overview

Wastes are a major issue in Lebanon, recycling is a potential solution to this problem. This project is about creating a compact fully-automated waste sorting machine that categorizes wastes efficiently into five categories: metals, aluminum cans, glass, plastics and organic material. This machine will be designed to operate in a refugee camp. It will motivate users by giving them a voucher with an amount equivalent to the mass of recyclables added. The goal of the project is to implement this concept in Syrian refugee camps in order to help in solving the problem of huge amount of waste piling around the camps.

## Project Areas and Majors needed

Design (2 MEE Students)	Instrumentation (2 MEE Students)
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## Project Deliverables

Design and Build a waste sorting machine with the following functions:

- A devise that separate the waste and organize their entry into the machine
- A sorting devise that categorizes wastes efficiently into five categories: metals, aluminum cans, glass, plastics and organic material.
- Weighing devises at each bin that measures the amount of material added
- A user interface to calculate the amount of the voucher to be given to a user
- Assess the feasibility of powering the machine with solar panels
- Apart from the recycled waste bins, the overall machine dimensions should not exceed 1.5m by 1m.S