



## Project I Description

**Project Name:** Facility design of an existing packaging industry accounting for ergonomic constraints

**Sponsor:** LAU / LIRA (UNIPAK)

**Team Size:** 2 INE Students

### Project Overview

The goal of this project is to revamp a current facility to improve a local Lebanese packaging industry. Throughout the project, the current Lebanese industry practices and techniques relevant to work systems: management, design & measurement will be evaluated and compared with international status. This gap analysis will identify the necessary measures required to enhance throughput and safety. The measures will be prioritized and tailored accounting for their local applicability.

The study will take place at UNIPAK where corrugated packaging is produced.

This project also includes the design of an effective and environmentally friendly plant lighting system, intensive enough, which can fit the plant situation, to replace the current system. The latter should be part of a complete ergonomic solution.

### Project Areas and Majors needed

Ergonomics (1 INE Student)

Facility Planning (1 INE Student)

### Project Deliverables

Upon successful completion of the project, we would have:

- Studied and current practices in a Lebanese industry with respect to work systems, lean manufacturing practices and adherence to standards.
- Pin-pointed shortages in work methods such as:
- Proposed a new facility design to the studied facility.

## Design Constraints

- The studied industry is preferably in food manufacturing or a related industry such as food packaging or food machinery.
- The proposed solution must be feasible and has a return on investment of less than 5 years.

**Advisors:** Drs. Ramy Harik and JP Arnaout

**Students:**

**Team1**            Joey Maria Jabra  
                         Karen Maroun  
                         Wissam el Khoury

**Team2**            Perla Homsy  
                         Wissam el Hachem

**Team3**            Pierre Njeim  
                         Rabih Dib