Singapore University of Technology and Design (SUTD)

Steelcase Manufacturing Malaysia

## Project Introductions Reduction of Logistics and Packaging Cost

### Team Introduction: Student Team



Yuan Nan (ESD)



Nguyen Hoang Nam (ESD)



Tirtho Sarker (ESD)



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Hui Wen (EPD)



Xiao Qi (EPD)



Herlinda (EPD)

## Team Introduction: Faculty Advisors

- Prof. Lynette Cheah
   (Engineering Systems and Design)
- Prof. Low Hong Yee (Engineering Product Development)

## Capstone Background: Course Description

- Understand the multidisciplinary design process.
- Collaborate in a team across pillars to construct models or prototypes.
- Aspects addressed include:
  - o Understanding of design issues
  - o Design and technological research
  - o Etc.

### Capstone Background: Measurable Outcomes

- 1. Framed design issues and design briefs
- 2. Applied technical and design principles to tackle problem
- 3. Researched, analyzed and evaluated design options
- 4. Worked as part of a cross-disciplinary team
- 5. Communicated effectively via a variety of media
- 6. Recognized the impact of design solutions in a global and societal context
- 7. Demonstrated product realization techniques

# Capstone Background: Possible Metrics for Project Goals

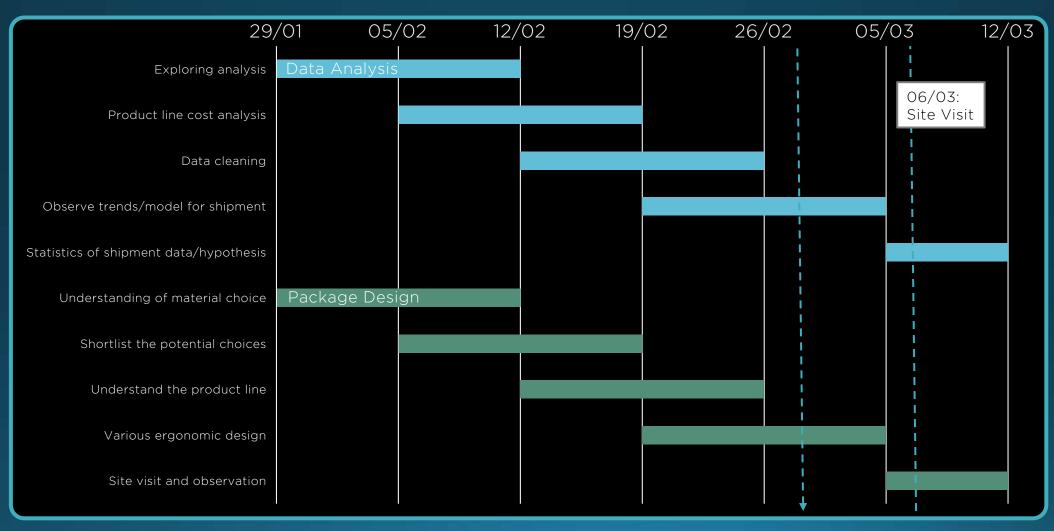
#### Packaging Design

- Environmental friendly
- Steelcase Test Benchmarked
- Compact profile
- Ergonomic for carry

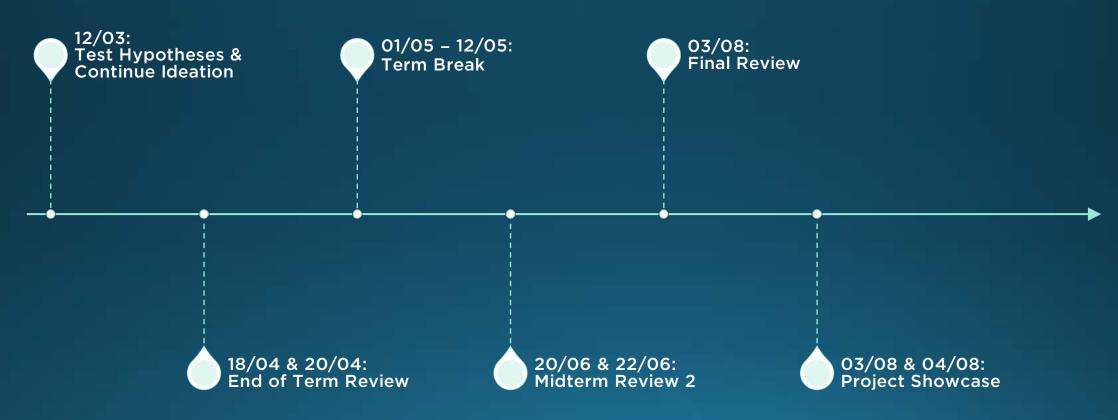
#### Data Driven Solution

- Improved outbound shipment throughput
- Maximum cargo space utilization
- Effective product prioritization

## Timeline (Jan18 – Mar18)



## Timeline (Mar18 – Aug18)



You are invited to join us for all review and showcase sessions. A more detailed timeline will be available at the end of every review milestone.

### Design Process (Current Stages)

Define problem/scope

- 1. Reduce the logistics cost.
- 2. Reduce the packaging cost.
- 3. Environmental-friendly concerns.

Conduct background research

- 1. Company background research.
- 2. Potential software skills.
- 3. Packaging materials/mechanism research.

Specify requirements Identify constraints

- 1. Product/Testing requirements.
- 2. Constraints from the data.

## Design Process (Future Stages)

Brainstorm & Exploratory analysis Develop solutions & Build models Conduct trade-off analysis Prototyping Testing, Feedback & Redesign

## Logistical Tools

- Google Drive: File sharing within Student Team
- Trello: Task assignment within Student Team
- Basecamp: File sharing between

  Student Team and Steelcase
- Git/Github: Version control for code management

## Thank you for your time!