

Engineering Lab: Ship Shape!!

Problem Statement:

Industrialization requires the shipping of raw materials to producers, then finished goods to consumers.

Design Statement:

Create a cargo ship that is able to transport the most amount of pennies (copper as raw material).

Constraints:

- 1 ft² of aluminum foil
- Boat cannot be wider than 26 cm or deeper than 18 cm.

Roles: *all group members will assist each other with these roles*

- **Project Manager** (ORGANIZED and FOCUSED: time, task and quality control)
- **Engineer** (PROBLEM SOLVER and DRAWER: sketch design and test product)
- **Builder** (FOLLOW DIRECTIONS: assemble the final product, make modifications)
- **Payload Operator** (FOCUSED and COORDINATED : ensures that cargo is properly distributed..... steady hands)

Research & Brainstorm:

- **NOTES:**
 - 4 different sketches of possible designs
- **Discussion notes:**
 - Pros and Cons of designs plans

Implementation:

- Detailed Sketch with LABELS
- Make Observations during testing
- Make modifications to design/sketch

Feedback:

- Make at least 3 observations of other ship
- Propose 3 modifications to group ship

Results/Performance

How much raw material was your ship able to transport (#pennies)?