MILESTONE 1 (STAGE 1) – PRE-PROJECT ASSIGNMENT

Team Number: | Thurs-03

Complete this worksheet individually before coming to Design Studio 7.

- 1. List out objectives, constraints, and functions in the space below
 - → Be sure include your Name and MacID
 - → Each objective/constraint/function should be typed out as a separate bullet

Name: Kartik Chaudhari

MacID: chaudk4

Objectives

- Quick and successful equipment transfer
- Enable the surgical equipment to be easily sterilised.
- To pass the container to the autoclave using a robotic arm
- Instruments should be kept in place safely during transport.
- Simple insertion of surgical tools
- Rigid enough not to hurt the tools during transport
- Reduces interaction with sensitive instrument (scalpel blade) materials

Constraints

- Good enough to endure pressure from the arm
- The dimension is ideal for operating.
- Does not lose the machinery during movement
- Places the equipment in the right position and orientation

Functions

- Sterilize the surgical equipment
- Allowing accurate motions
- Classify the surgical instruments according to colors
- Enable motion in all dimensions
- Enables the carriage of equipment

At the beginning of Design Studio, we will be asking that you copy-and-paste the above list into **Milestone One Team Worksheets**. It does seem redundant, but there are valid reasons for this:

- Each team member needs to submit their list of objectives, constraints and functions with the **Milestone One Individual Worksheets** document so that it can be **graded**
- Compiling your individual work into this **Milestone One Team Worksheets** document allows you to readily access your team member's work
 - o This will be especially helpful when completing **Stage 2** of the milestone

MILESTONE 1 (STAGE 2) – LIST OF OBJECTIVES, CONSTRAINTS, AND FUNCTIONS

Please complete this worksheet in your corresponding team document.

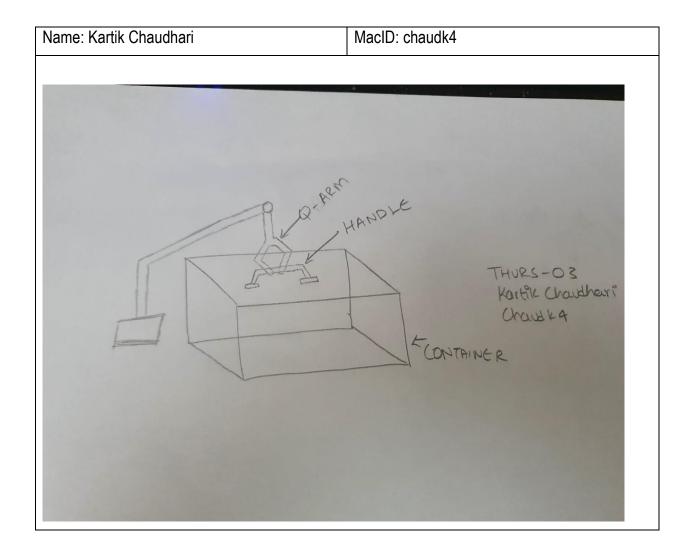


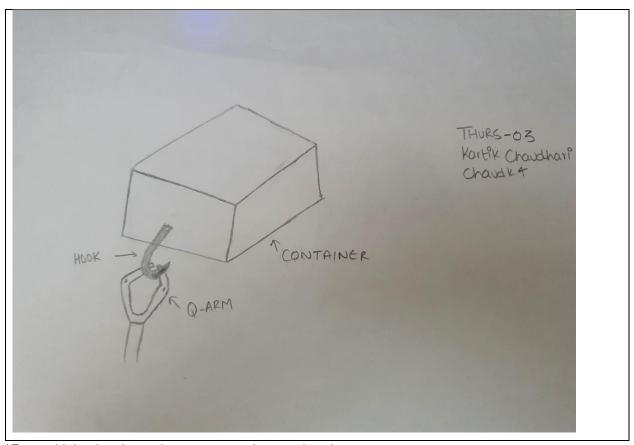
MILESTONE 1 (STAGE 4) – CONCEPT SKETCHES

Team Number: Thurs-03

Complete this worksheet <u>after</u> having done stage 3 as a team.

- 1. Complete your sketches on a separate sheet of paper
 - → Be sure to clearly write your Team Number, Name and MacID on <u>each</u> sketch
 - → Do **not** include concepts for the stabilization and sterilization of the tools
 - → You can sketch only the container, and do not need to sketch the Q-arm itself unless it adds to the communication of your design
- 2. Take a photo of your sketch
- 3. Insert your photo as a Picture (Insert > Picture > This Device)
- 4. Do not include more than one sketch per page





*For multiple sketches, please copy and paste the above on a new page