

MILESTONE 1 (STAGE 1) – PRE-PROJECT ASSIGNMENT

Team Number: **Thurs-23**

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: Vaisnavi Shanthamoorthy	MacID: shanthav
<p><i>Objectives</i></p> <ul style="list-style-type: none">• Easily accessible• Lightweight• Portable• Small	
<p><i>Constraints</i></p> <ul style="list-style-type: none">• surgical tool should be held in place in a firm manner, not moving around• mass of container should be less than the mass of the robotic arm• all features must be greater than 4mm• the base of the container must fit within the desired location of the autoclave• mass cannot exceed 350g• objects should be no larger in width of about 80mm• able to hold objects with width of about 150mm (less securely)	
<p><i>Functions</i></p> <ul style="list-style-type: none">• Hold objects (surgical tools) securely in place• Grip objects• Release objects• Pick up objects• Rotate• Move forward• Transfer objects into container• Identify the correct target location (correct autoclave bin)• Code should terminate or continue based upon the number of objects (containers) successfully placed in the correct container	

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
 - 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 3) – MORPHOLOGICAL ANALYSIS

Please complete this worksheet in your corresponding team document.

MILESTONE 1 (STAGE 4) – CONCEPT SKETCHES

Team Number: **Thurs-23**

Complete this worksheet after 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 each 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**

Team Number: Thurs-23

Name: Vaisnavi Shanthamoorthy

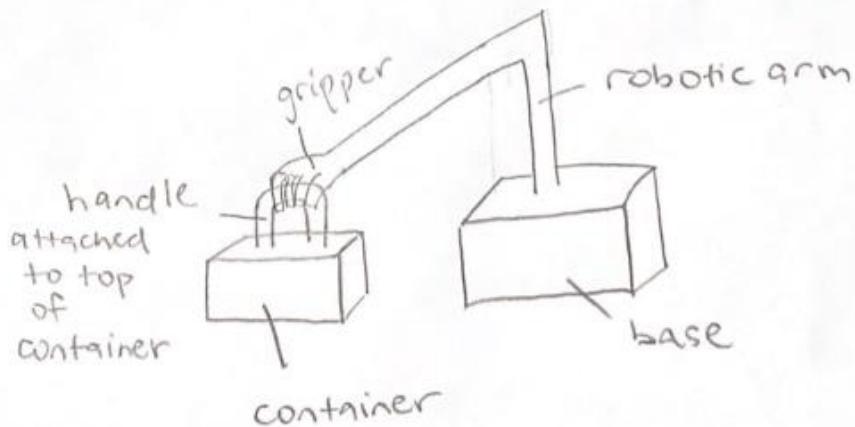
MacID: shanthav

Insert screenshot(s) of your concept sketches below

Means: Handle

Means: Handle

Team #: Thurs-23
Name: Vaisnavi
Shanthamoorthy
MACID: shanthav



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

Name: Vaisnavi Shanthamoorthy

MacID: shanthav

Insert screenshot(s) of your concept sketches below

Means: Sensors

Means: Sensors

Team #: Thurs-23

Name: VAISNAVI

SHANTHAMOORTHY

MACID: shanthav

