

Milestone 0 (Team) – Cover Page

Team Number: 9

Please list full names and MacID's of all *present* Team Members.

Full Name:	MacID:
Marco Tan	tanm27
Josiah Kim	Kim190
Aleen Al Barbarawi	albarbaa
Aditi Srinivas	srinia14

Any student that is ***not*** present for Design Studio will not be given credit for completion of the worksheet and may be subject to a 10% deduction to their DP-1 grade.

Please attach your Team Portrait in the dialog box below.



MILESTONE 0 – TEAM CHARTER

Team Number: 9

Project Leads: As a team, come to an agreement on who will take the lead on each administrative task. Each role can only have one team member. In the event there are 3 students in a team, there will be no Subject Matter Expert

Role:	Team Member Name:	MacID & Signature
Manager	Josiah	kim190
Administrator	Aditi	srinia14
Coordinator	Aleen	albarbaa
Subject Matter Expert	Marco	tanm27

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MILESTONE 1 (STAGE 1) – GATHERING INFORMATION

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Document all pertinent information related to the management of the assigned medical device (ostomy bag) in general and in reference to your unique design challenge in the space provided.

How do you clean an ostomy bag

- depends on the parts involved, e.g.: colon cancer, we take the colon out.
- Easiest way to take faeces out is by the stomach.
- Nutrient absorption// dehydration
- Big, fancy diaper// no conscious way to control
- One piece bag is more flexible
- 2 piece is not flexible, needs coupling

Does diet need to change. / What do you do to maintain your diet/health

- No diet change is need.
- Eating Food that gives u constipation. Eg: salty, vinegar, starch, junk food
- Texture is more important than the actual food

Where it's usually put? - lower abdominal

Night Management

- Depends. if the leaking is a lot (high output), they must wake up at night or put an alarm.
- Depends on volume, consistency
- Often depends on how fast you it fills

The texture of the ostomy bag

- No irritation or rash, a lot of technology into the product, makes the skin friendly. Sweaty—absorb sweat from the skin while it still attaches.
- Protect skin by preventing leaking (wax)

Life issues.

- Impacts if there isn't confidence
- 1000 dollars by government, financial problems. Impacts so much of their lives.
- If there's a Drug plan that covers that's helpful but if not Some move to different provinces
- Strung down if the if the stoma is behind skin
- You get Hernia, if you don't have good muscles
- Alcohol free products are more expensive because it doesn't work for children/allergies

How do you make an ostomy bag cost effective to buy?

barriers \$100

pouches \$70

100 dollars for 10 bags

How do you pick materials for ostomy

- Skin friendly, resistant to breakdown, something flexible, skin barrier because Some Patients must Catheterize in order to release
- Cons: tear because its plastics, manufacturer problems, tear skin down

How do you generalize design to fit the ostomy

Overall shape is very general. Some Pouches are created in order to be fully closed so they don't have a opening (swap pouches)

What does it feel like to live with one/ activities

- Activities doesn't affect.
- More sweat leads to changing more often.
- Life doesn't change.
- Life is better for most people.
- Ostomy is life changing.
- Weight changes, fluctuation, body changes

How do u manage it

- Change one day- kills skin
- Changing Average 2-4 days

Dealing with mental pressure

- Adjust psychologically (tips and advice),
- talking to someone that has it (understanding)

From using it, was it a hassle (Life hampering)

- Marriages broken up (mental issues)
- Suicides --> life changing
- Creates a barrier especially first year

Was the Transition hard?

- It's tougher if they have no idea,
- For kids, they get bullied, yet easier because they're growing up with it
- A Challenge at any age
- Educating/normalizing people is important for them

Wishlist

1. It happens, more reliable that won't fall apart.
2. Soundproof(sol) (Wishlist

MILESTONE 1 (STAGE 2) – OBJECTIVES AND CONSTRAINTS

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As a team, identify a list of objectives, constraints, and functions for a proposed design solution. Your list should:

- Focus on your assigned design challenge
- Be comprehensive enough to fully define the given problem

OBJECTIVES	<ul style="list-style-type: none"> Seal should be strong/durable. <i>Should be comfortable to wear</i> <i>Bag should be long lasting</i> Should be skin friendly. <i>Should create less noise</i>
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CONSTRAINTS	<ul style="list-style-type: none"> Must be inconspicuous under fitted clothing Must support active lifestyle It must fit her physical dimensions (be low profile). It must be financially accessible (<i>no more than \$10/per bag</i>). <i>All other constraints that are applicable to an ostomy bag</i>
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MILESTONE 1 (STAGE 3) – NEED STATEMENT

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Need Statement

Write your *Need Statement* in the space below, based on the information you have gathered and your assigned design challenge. Recall that your need statement should:

- Have a clearly defined problem (*what* is the need?)
- Indicate your end-user (*who* has the need?)
- Have a clearly defined outcome (*what* do you hope to solve and *why* is it important?)

NEED STATEMENT:	Design improvements upon Carla Tortelli's one-piece ostomy bag to prevent leakage from its seal at the skin and improve overall performance and longevity of the bag. This should improve her quality of life by reducing maintenance costs and stress associated with living with an ileostomy while supporting her lifestyle.
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