# Milestone 3 (Team) – Cover Page

Team Number: 9

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

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

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.

# MILESTONE 3 (STAGE 1) – DESIGN CONFIGURATION

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As a team, document the configuration of your design in the space below, describing each of the following:

→ The **form and function** of your design
→ The **fabrication and assembly** (if applicable)
→ The **device/user interaction**

Your description can be in the form of **detailed sketches and schematics**, a **list of design specifications** (i.e., bullet-point descriptions) or a combination of the two.

*Form and Function:*

- *Enlarging the sticky patch*
- *Increase in surface area/size of the skin barrier.*
- *More adhesive on all sides.*

*Fabrication and Assembly:*

- *Double layer:*
  - *Plastic on the inside and fabric on the outside.*
- *Larger skin barrier:*
  - *Expand skin barrier with [FILL OUT]*

*Device/User Interaction:*

- *Usage is the same as the original ostomy bag.*
- *Outside Design to be more fashionable with patterned fabric:*
  *Graphic design ostomy bag for kids*

# MILESTONE 3 (STAGE 2) – PRELIMINARY PROTOTYPING

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As a team, outline the specifications for your low-fidelity prototype. You should clearly describe the following:

1. All components that need to be fabricated
2. Necessary modifications to the existing medical device (if applicable)
3. What materials would comprise your prototype
4. What tools and processes are required to fabricate your prototype

You can use the table below as a guide but are free to document your work however you choose. There is no explicitly required format for submission

| | |
|---|---|
| **Components to be fabricated** | *Document your work in the space below*<br>• Layer of fabric to cover the plastic layer of the ostomy bag<br>• Fabric to cover plastic. |

| | |
|---|---|
| **Modifications to existing medical device (if applicable)** | *Document your work in the space below*<br>• Larger skin barrier.<br>  ○ Expanded ring of fabric.<br>  ○ More adhesive.<br>  ○ Replacement of current fitting ring with silicone. |

| | |
|---|---|
| **Materials to be used** | *Document your work in the space below*<br>• Fabric (tablecloth)<br>• Hydrocolloid wafer (play-doh wrapped in plastic)<br>  ○ Making the hydrocolloid wafer more compliant (currently a little rigid).<br>  ○ Rubber/silicone ring (this is a substitute for Hydrogel ostomy adhesive)<br>  ○ Hydrocolloid is made of pectins, gelatines, and cellulose, absorbs water and swells into a gel.<br>• A Hydrogel adhesive material around the hydrocolloid layer (double sided tape) |

| | |
|---|---|
| **Tools and processes required to fabricate your prototype** | *Document your work in the space below*<br>• Cut fabric to fit the size and shape of the colostomy bag, and glue onto the fabric (a light adhesive so we do not permanently modify the colostomy bag).<br>• Play-doh stand-in for the hydrocolloid wafer. |

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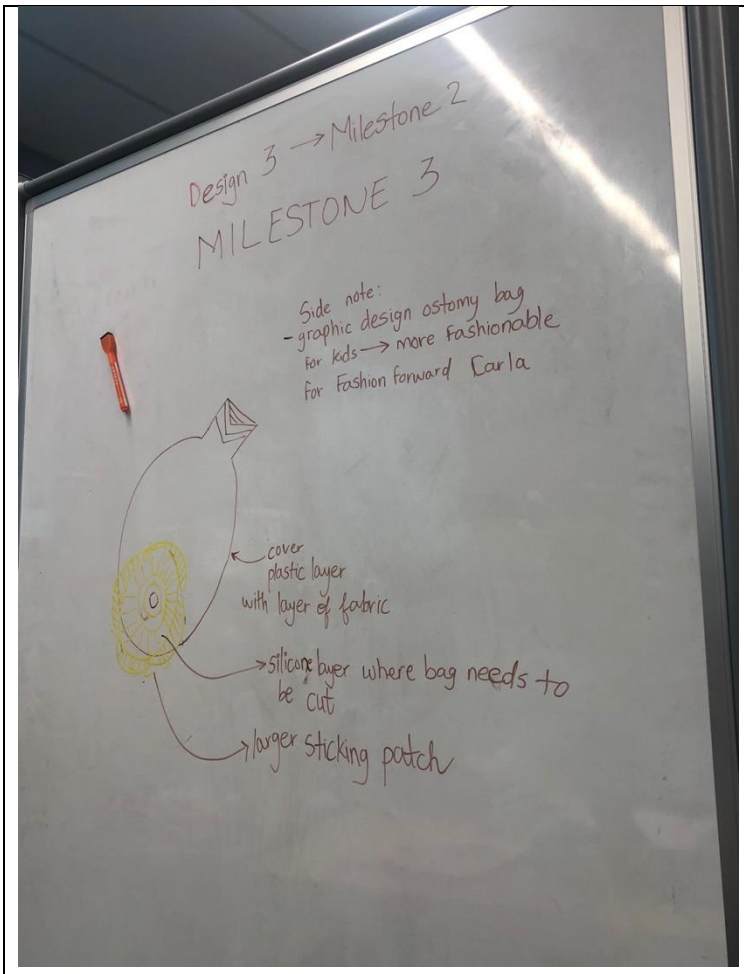


***Important**: this is NOT required, but should be done for documentation purposes (if your team has progressed to this point)