

CUTLERY CHALLENGE

CREATE ALUMINIUM BASED MULTIPURPOSE
REUSABLE CUTLERY

WHY?

To communicate the broad strokes of a design thinking challenge, and to give practice using a specific material (Here, Aluminum).

MATERIALS

Core component: Aluminum
You may modify the materials as desired.
You may add craft and other materials as desired.
Each team completes this design thinking workbook and fills up the chart.

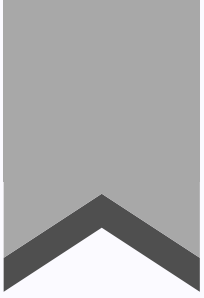
PREREQUISITE SKILLS

The ability to communicate about food and ask questions about food.
The ability to fold and mold aluminum.

CHALLENGE THEME

Core component: Aluminum
You may modify the materials as desired.
You may add craft and other materials as desired.
Each team completes this design thinking workbook and fills up the chart.

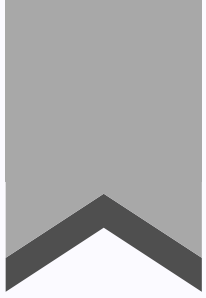
*Based on Stanford Design Thinking Facilitators Workbook.



CUTLERY CHALLENGE

**DESIGN AL
BASED MULTIPURPOSE
REUSABLE CUTLERY**

Sketch your Idea here. (3 mins)



CUTLERY CHALLENGE

DESIGNAL BASED MULTIPURPOSE REUSABLE CUTLERY

This is called "False start".

Participants are doing a false start. By doing this the main intention is to contrast an abstract problem-centered approach to a human-centered design which participants will experience throughout this session.

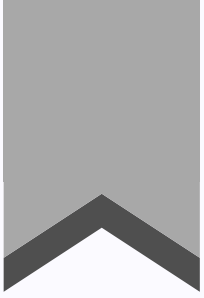
Participants will feel stuck and delay making some sketches in the paper due to mind block. Keep reminding them of the time left can push them to start. At the end of this step,

Ask, "How they feel?"

Explain, "This is the conventional problem-solving approach"

In traditional problem-solving approach, we take the given problem statement and work on it using our own opinion and experience to guides us and with a solution in mind to be designed.

Now, let's try **human-centered design thinking** process.



CUTLERY CHALLENGE

Design AI based multipurpose reusable cutlery which is useful and meaningful for your **partner**. Start by gaining **empathy**.

1 Interview

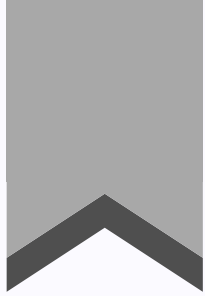
8 mins (2 sessions * 4 mins each)

Switch roles and repeat interviews

2 Digging Deeper

8 mins (2 sessions * 4 mins each)

Switch roles and repeat interviews



CUTLERY CHALLENGE

Design AI based multipurpose reusable cutlery which is useful and meaningful for your **partner**. Start by gaining **empathy**.

1 Interview

8 mins (2 sessions * 4 mins each)

The most important part of designing for someone is to gain "EMPATHY" for that person.

One way to do this is have a clear conversation with the person.
Be clear about the intentions of the interview.

Partner A will have 3 mins to interview Partner B, then will have to switch roles and repeat interviews.

"As a starting point, as your partner, what kind of disposables they use more often and then ask where they use the disposables most."

Ask students to frame up their own questions and take note of things they find interesting and surprising.

Let's Begin...

Switch roles and repeat interviews

2 Digging Deeper

8 mins (2 sessions * 4 mins each)

After the first set of interviews, ask them to follow up on things that intrigued them during the first interview.

"Try to dig in, stories, feelings and Emotions."

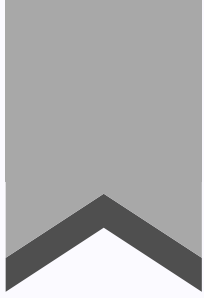
"Ask WHY? often"

"Find out the pitfalls the person reveals about the present disposables and make note of those"

you might stop and give the attendees a short interval of 45 seconds to plan their second interview.

Remind them about the Time and switch roles once the allotted time is over.
Repeat interviews, make note on unexpected discoveries.

Switch roles and repeat interviews



CUTLERY CHALLENGE

Re-frame the Problem

3 Capture Findings

3 mins session

Needs: Things they are trying to do.

Tell them to individually take a few minutes to collect their thoughts and reflections on what they have learnt about their partner's need.

"Try to synthesize your learning's into a few needs that you have discovered."

Insights: New learning about your partner's feelings/ world view to leverage into your design

"Find few insights that you have found interesting from your partners while interviewing."

"Insights" are discoveries that you might be able to leverage while creating solutions.

4 Define Problem statement

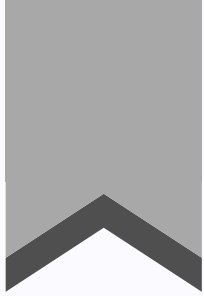
3 mins session

Now, tell them to select the most compelling need and most interesting insight to articulate a problem statement.

"This is the statement that you are addressing with your design, so make sure it is actionable!"

"It should feel like a problem worth solving!"

Fill the blank space with the problem statement found out.



CUTLERY CHALLENGE

I d e a t e : generate alternatives to test

5 sketch 3-5 radical way's to meet user's needs

5 mins session



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Write your problem statement here

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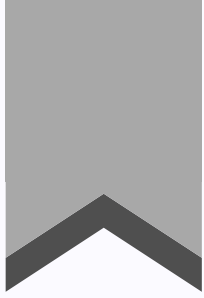
6 Share your solution and capture feedback

10 mins (2 session * 5 mins each)

Notes

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Switch role after 5 mins and repeat sharing



CUTLERY CHALLENGE

I d e a t e : generate alternatives to test

5 sketch 3-5 radical way's to meet user's needs

5 mins session

Remind them, that now they are creating solutions for the new challenge they have identified.

Tell them to sketch a lot of ideas and to try to create a number of different ideas.

"This is the time for Idea generation, not evaluation- you can evaluate your ideas later!"

Suggest friendly competition on who comes up with the most number of ideas.

See if attendees can come up with at least 7 ideas.

Remind them they are not designing the cutlery, instead they are creating solutions to the problem statement, they just created.

"Remember to be VISUAL - use words just when necessary to call out details."

6 Share your solution and capture feedback

10 mins (2 session * 5 mins each)

Now, it's time to share your sketches with your partner.

Partner A, shares the sketch with Partner B and then will tell you to switch after 4 minutes.

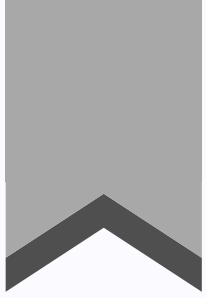
Tell them to note likes/dislikes and build on the idea. Listen to new insights.

"This is not about testing your idea."

"This is another opportunity to learn more about your partner's feeling and worldview."

"Fight the urge to explain and defend your ideas, instead spend time to listen to you partner's questions and reactions."

Switch role after 5 mins and repeat sharing



CUTLERY CHALLENGE

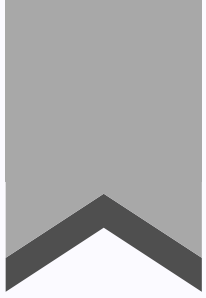
I t e r a t e : B a s e d o n F e e d b a c k .

7

Reflect and generate a new solution

3 mins session

Sketch your big idea. Note, details if necessary!



CUTLERY CHALLENGE

I t e r a t e : B a s e d o n F e e d b a c k .

7 Reflect and generate a new solution

3 mins session

They have had a chance to share their sketches with the partner and gain feedback.

:Now take a moment to consider what you have learnt both about your partner and the solution you have generated.

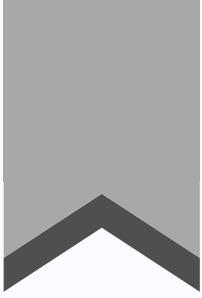
From this understanding, **"Sketch a new idea."**

This solution can be a variation of the idea generated before or a new one.

They are still addressing the problem statement that they articulated. In case of a new idea, point out them that there might be a change in the problem statement addressed. Maybe you need to change the problem statement then and create new insights.

"Try to provide as much as detail and color to your idea as possible!"

Using this idea generated, make a mind note on how to prototype/build it with the items given to you.



CUTLERY CHALLENGE

Build and Test

8 Build your solution

Make something your partner can interact with.

[not here]

6 mins session

9 Share your solution and get feedback

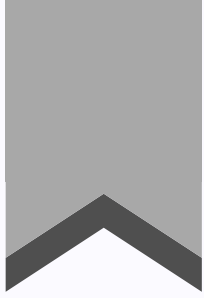
What worked?

What could have been improved?

Questions?

Ideas!

8 mins (2 session * 4 mins each)



CUTLERY CHALLENGE

Build and Test

8 Build your solution

"Create Physical Prototype of your solution."

MAKE something your partner can engage and interact with.

Make use of whatever material available to you.

6 mins session

9 Share your solution and get feedback

What worked?

Share the solution and understand from the partner what has worked.
Make a note of it.

What could have been improved?

Ask partner and make a note on what could have been done to improve the design as well as build.

Questions?

Note down further questions and insights.

Ideas!

Note down further ideas or modifications that can be done.

8 mins (2 session * 4 mins each)