DESIGN THINKING: PROTOTYPE

2021 FIRST California Workshop Series:

Product Development + Design Thinking

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Introductions



Amelia Traylor
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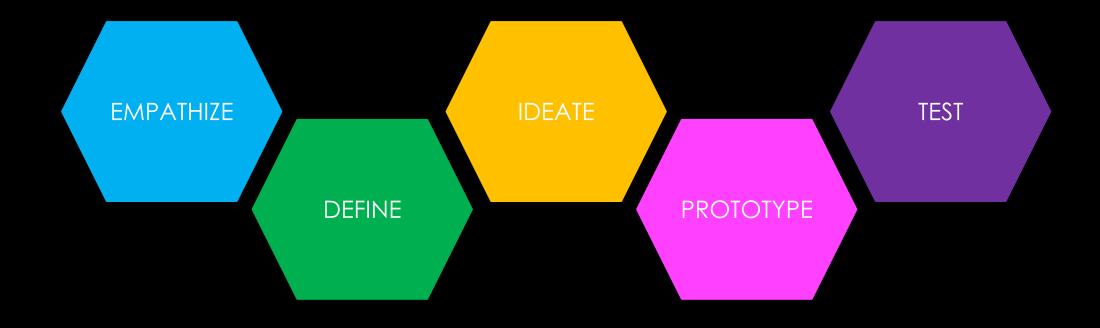
Adam Nayak

Junior

Civil & Environmental Engineering

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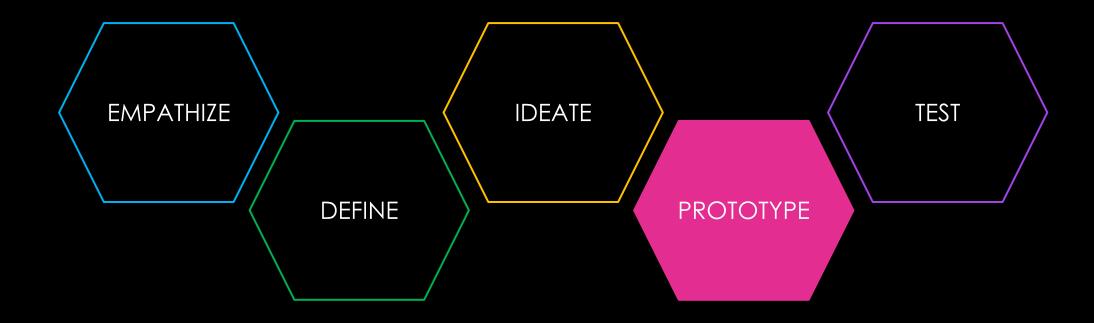
Design Thinking





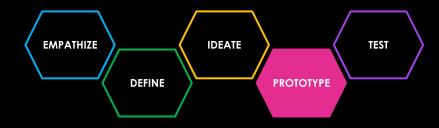


What is prototyping?





Prototype



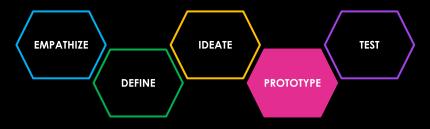
Prototyping gets ideas out of your head and into the world

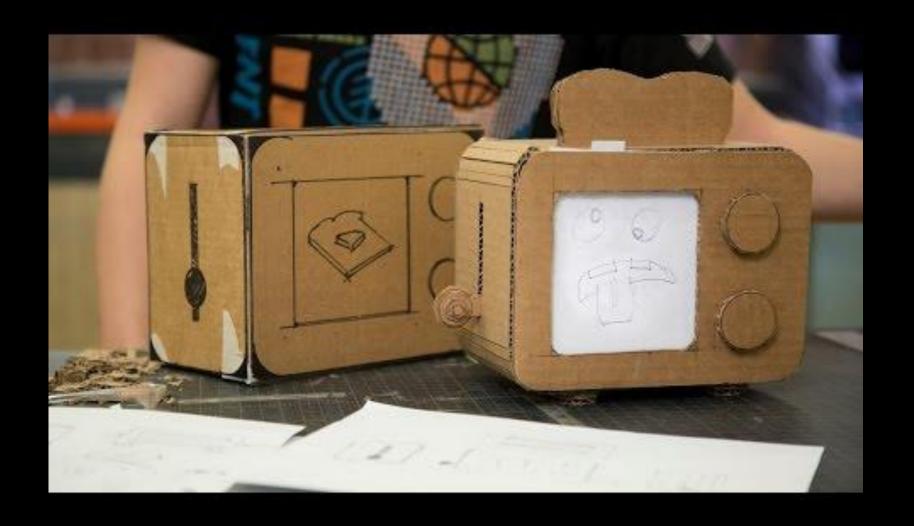












Prototype adapted from

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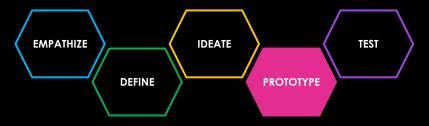
DEFINE IDEATE PROTOTYPE TEST

Prototyping doesn't just test functionality

- Empathy gaining
- Exploration
- Testing
- Inspiration

Prototype



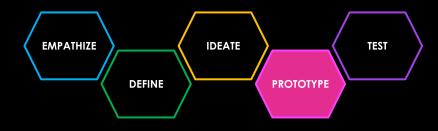


Prototype for Empathy

 Prototype for empathy to dig deeper into user needs or probe an insight you're developing

SKETCH PLAY SIMULATE



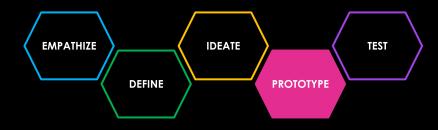


Simulate - Improvise to Life

Improvising to life allows you to confirm the product's potential success







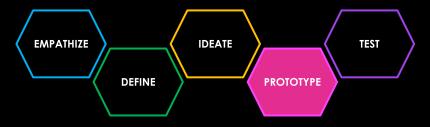
Tip: Scenes/Props/Roles

Set the scene:

Prototype

- Where should a user ideally encounter your concept?
- What props do you need to build?
- What roles do you need to play?





Breakout Room Activity - 15 min.

<u>Problem</u>: Heavy backpacks are uncomfortable for students commuting to college

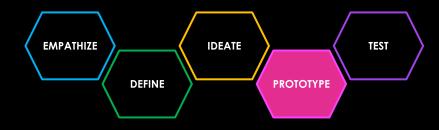
Proposed Solution: Backpack with multiple adjustable straps

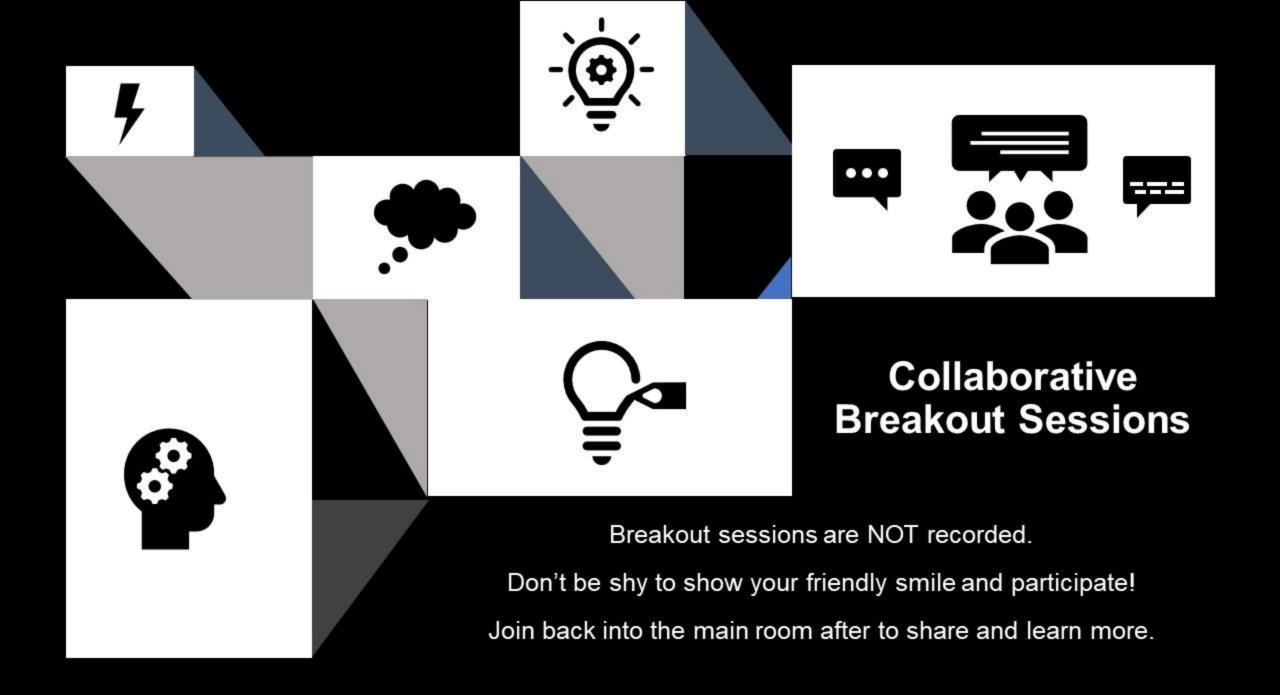
With your prototype team discuss:

- Scene for testing
- Props to use
- Roles to play

Prototype





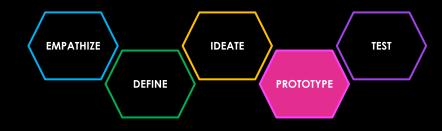


Breakout Room Activity: Share Out

How was it?

Prototype





Prototype to Decide

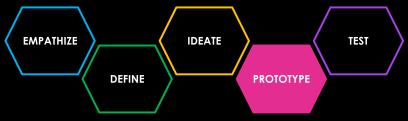
Prototyping to decide addresses the need to discuss with your team before deciding which design direction to pursue.





Prototype



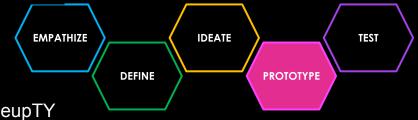


Wizard of Oz prototyping







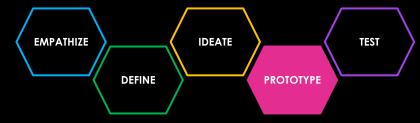


Prototype to Test

Prototyping to test is the iterative generation of low-resolution artifacts that probe different aspects of your design solution or design space







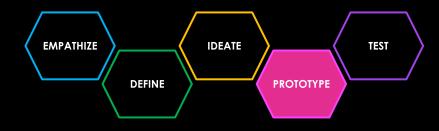
Final Tips

Fail Fast!

Prototype

- Start with a sketch
- Isolate your variables & keep the user in mind
- Notice things that work AND don't work
- Make changes and iterate





materials adapted from

the Hasso Platner Institute of Design at Stanford d.school Bootleg

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