D-TILE Techniques Part II – Creating the Future of Forks

Due: Mon, Sept 29 @ 12 pm
Submission: Upload a PDF to Canvas.
Class Component: Bring your **prototype fork** to class.

Problem Space

For this assignment, you'll reimagine one of the simplest daily objects: the fork. Forks have existed for centuries, but they aren't perfect. Can they be more efficient, sustainable, ergonomic, or inclusive? Could a fork serve multiple functions… or become something entirely new?

This exercise is about **thinking boldly while practicing prototyping**: making your ideas tangible, not just conceptual.

Assignment Steps

6. Specify Desired Outcomes

- What problems will your new fork solve?
- Who is your fork for (chefs, children, people with limited mobility, students on the go)?
- Define **clear, measurable outcomes** (e.g., "reduces waste in dining halls," "easier to grip for people with arthritis").

7. Concept Generation

- Brainstorm widely—no concept is too wild.
- Draw inspiration from sustainability, technology, nature, or MIT life.
- Examples: foldable forks for portability, smart forks that track nutrition, adaptive forks for accessibility, edible forks.

8. Concept Downselection

- Narrow ideas to **one strong concept** by weighing feasibility, impact, and fit with outcomes.

- Justify your choice: Why this design?

9. Concept Articulation & Prototyping

- Describe your fork design in detail: looks, functions, user experience.
- Show visuals (sketches, storyboards, CAD mockups).
- **Prototype your fork** using any materials (cardboard, clay, 3D print, utensils from your kitchen).
- **Bring your prototype to class** for a design showcase.

Why This Matters

- **Prototyping required:** Design is incomplete without something tangible.
- **Safe sandbox:** It's easier to take risks on forks than your real project.
- **Direct practice:** The same design cycle will apply to your MIT problem space later.
