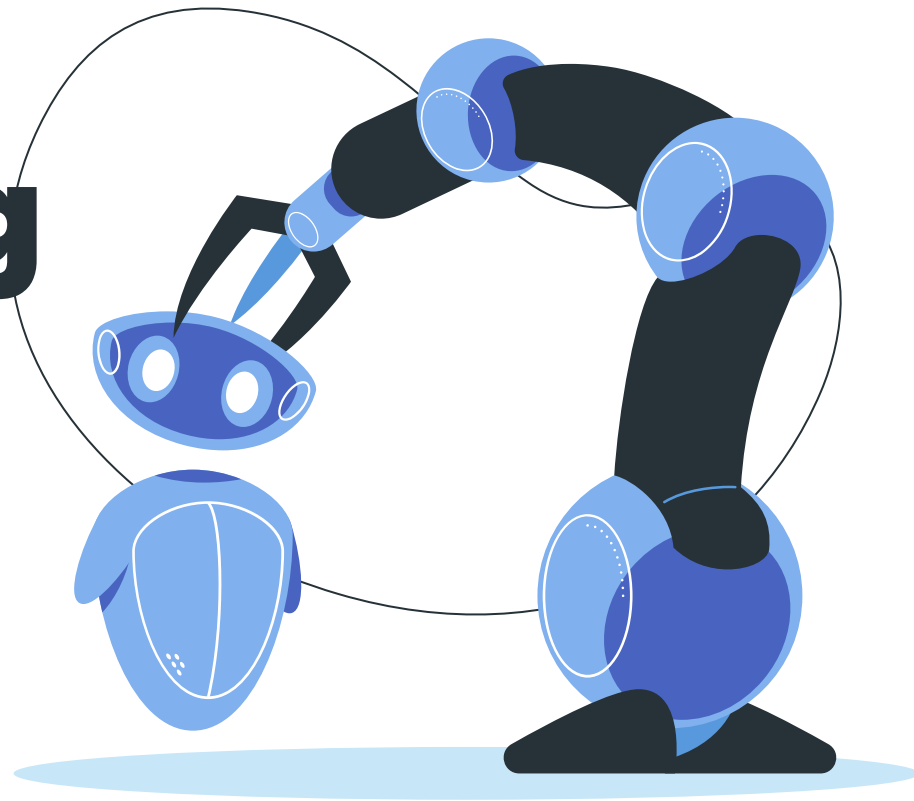


Prototyping and testing

Building Better Products

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Agenda

- Introduction
- Prototype planning process
- Types of Prototypes and Benefits of Prototyping
- Testing in Product Development and Types of Testing
- Importance of User Feedback
- Prototyping and Testing Tools
- Best Practices
- Challenges and Pitfalls
- Summary

Introduction to Prototyping

- **Definition:** Prototyping is the process of creating a preliminary, scaled-down version of a product to visualize its design, functionality, and features.
- **Types of Prototypes:** including paper prototypes, digital prototypes, and physical prototypes, depending on the product's nature.
- **Tools and Software:** Popular prototyping tools like Adobe XD, Figma, Sketch, and more.

Introduction to Testing

1. **Definition:** Testing involves evaluating the prototype's performance, usability, functionality and gathering user feedback.
2. **Types of Testing:**
 - **Usability Testing:** Assessing how easy the product is to use and identify user pain points.
 - **Functionality Testing:** Verifying that the product functions as intended without errors.
 - **A/B Testing:** Comparing multiple versions of a prototype to determine which performs best.

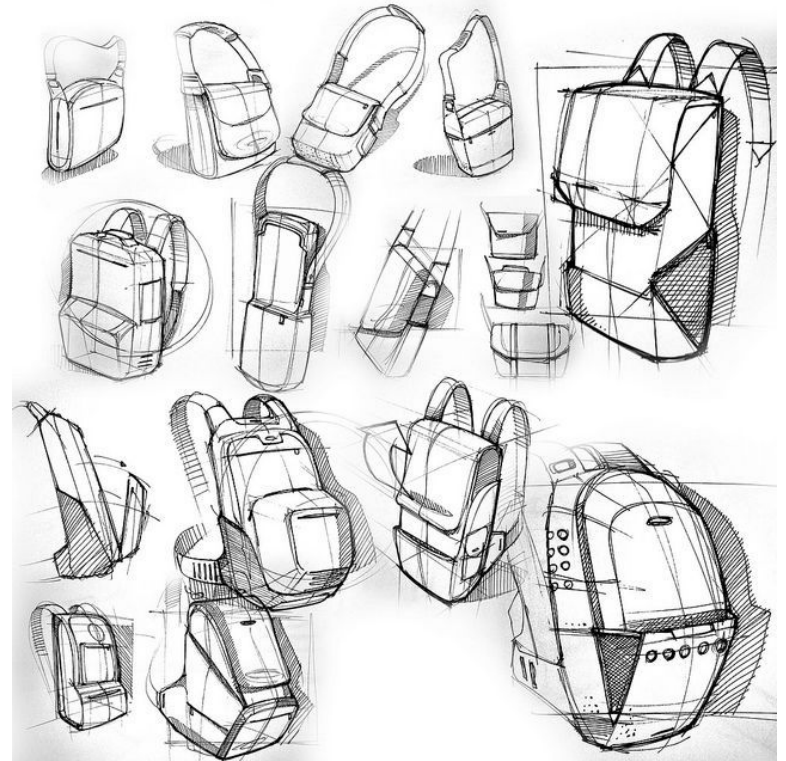
Prototype planning process

- 1. Define the purpose of the prototype**
 - List learning, communication and integration needs
- 2. Establish the level of approximation**
 - Analytical or physical prototype
- 3. Outline an experimental plan**
 - What tests will be done and how to analyze the data gathered
- 4. Creating a schedule for procurement, construction and testing**
 - Should contain dates for assembly, testing start, testing end and final results

A good plan saves time, money and keeps the process on track

Low-Fidelity Prototype

- + A low detail prototype
- + Effective in the early phases of development
- + Quick, easy and cheap to make
- Unable to be tested or unreliable results
- Limited functionality and interactivity

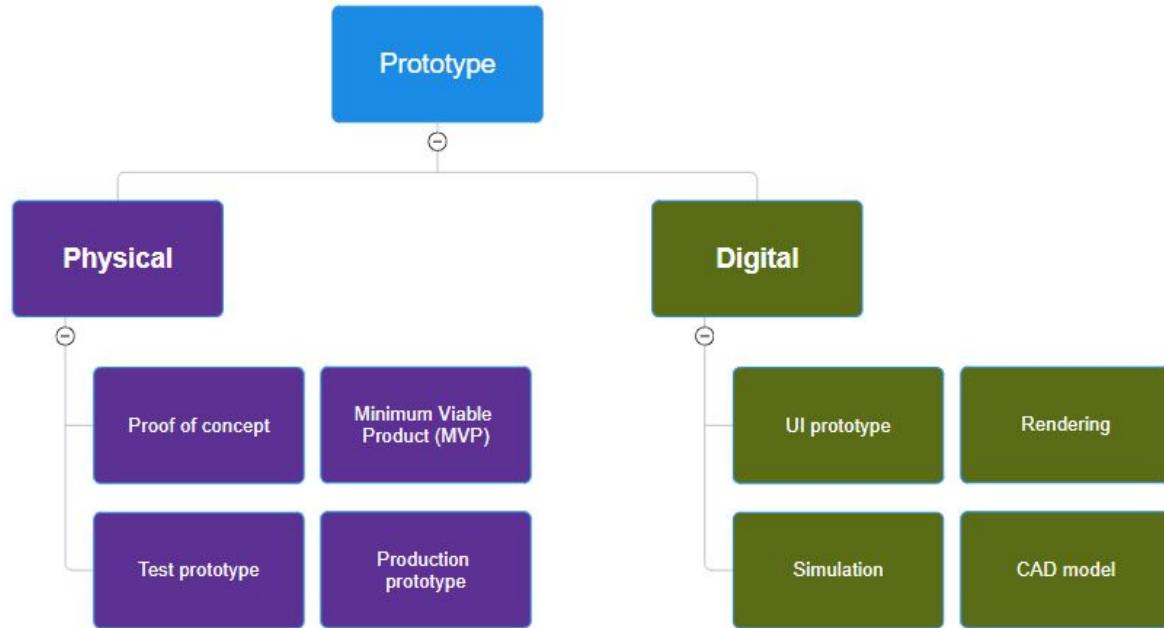


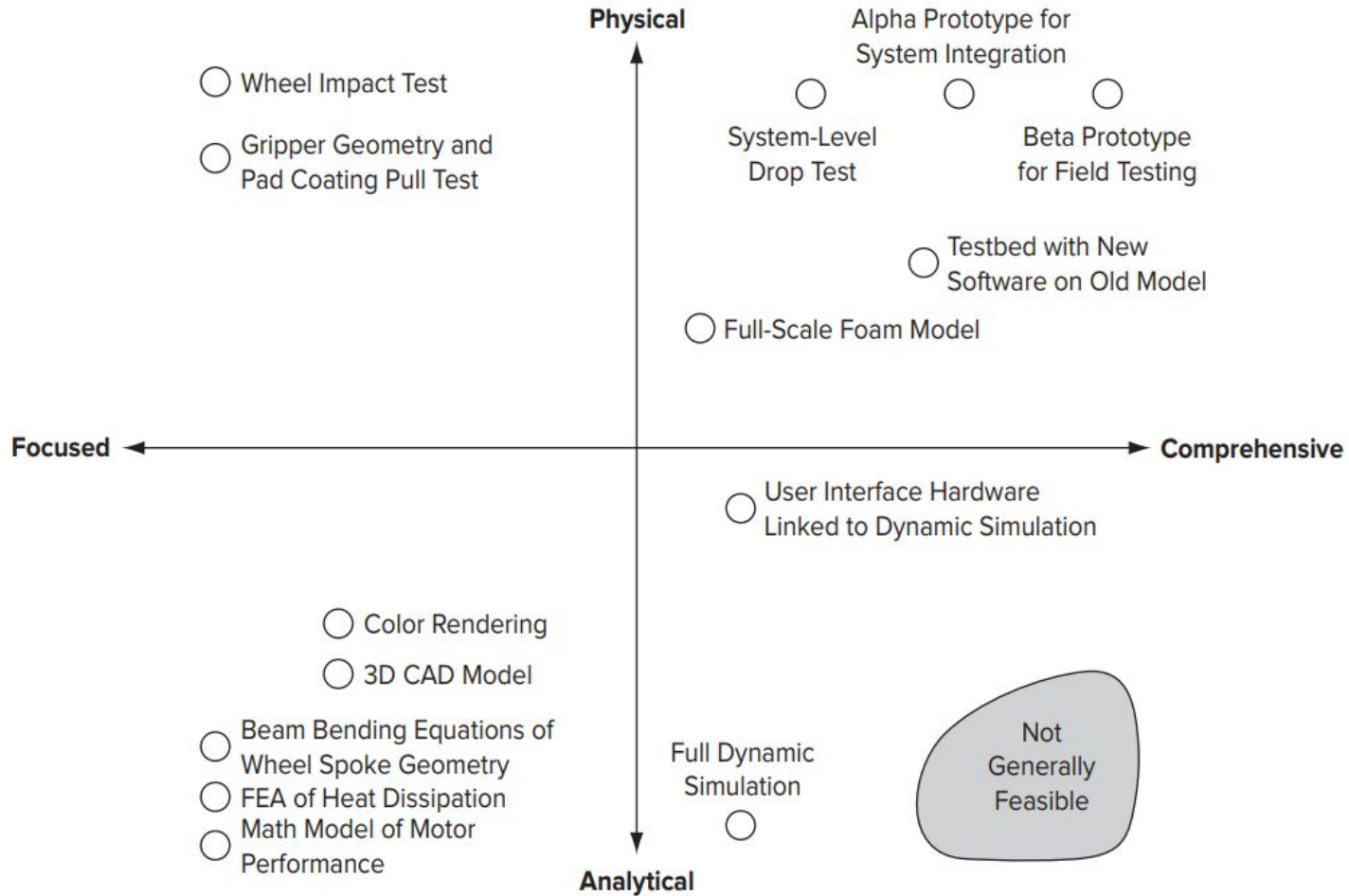
High-Fidelity Prototype

- + High detail prototype
- + Effective in later stages of development
- + Often very close to the final product
- + Reliable test results
- Expensive and time consuming

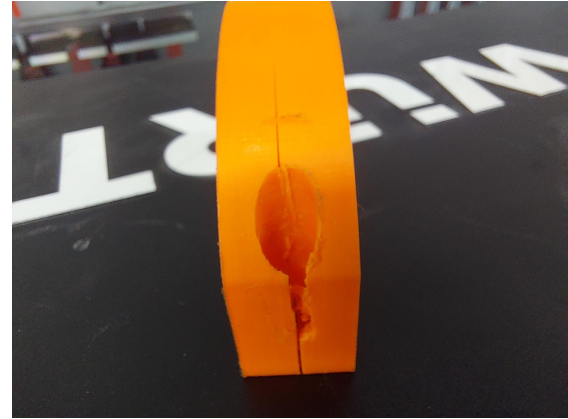
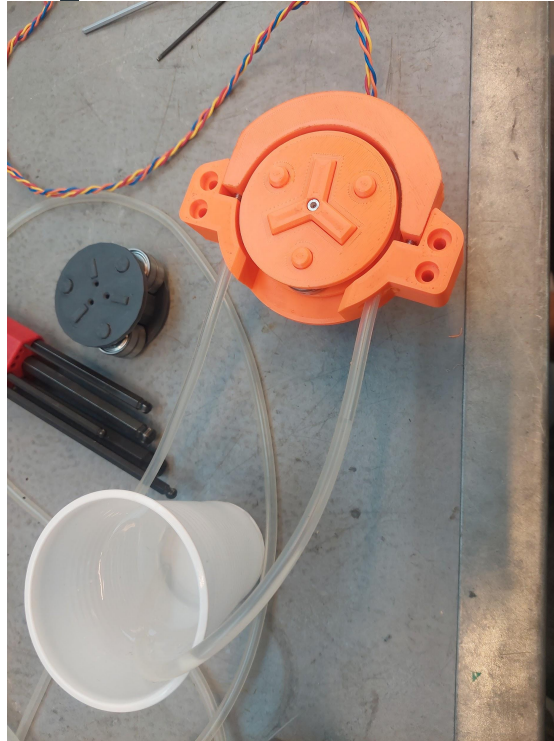
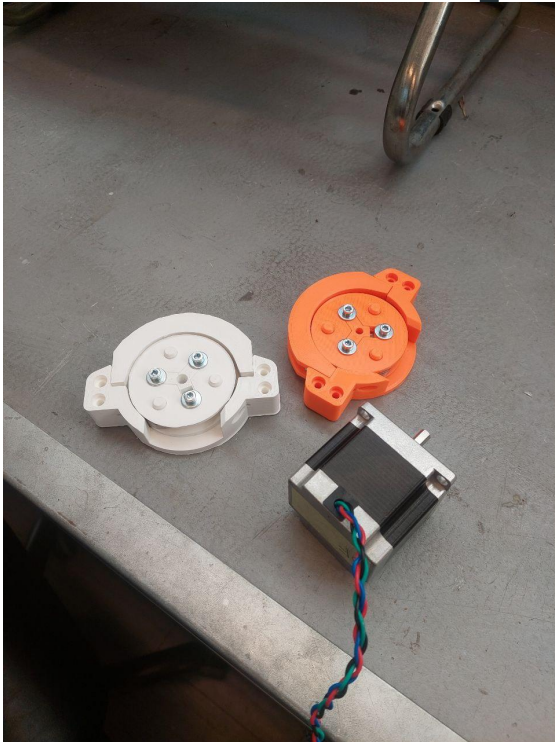


Different kinds of prototypes (There's something for everyone)

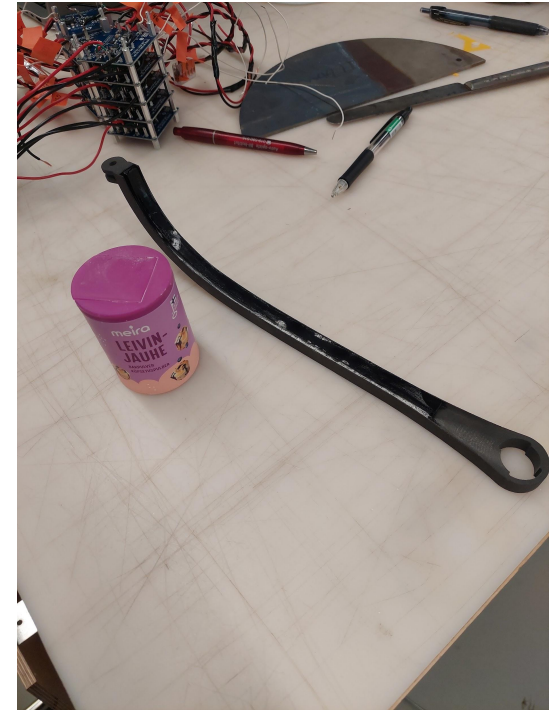
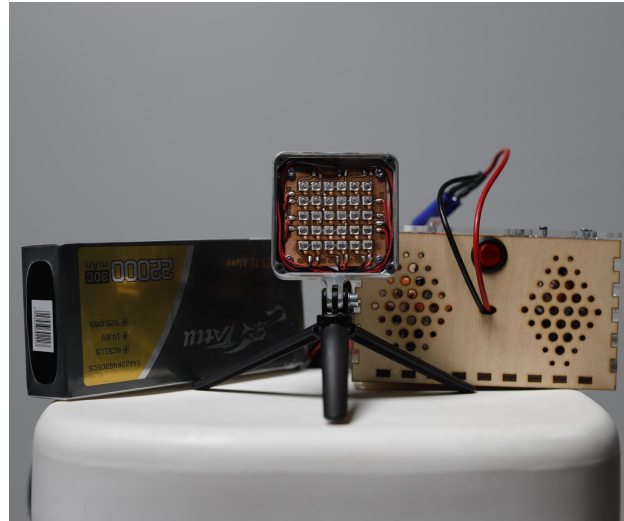
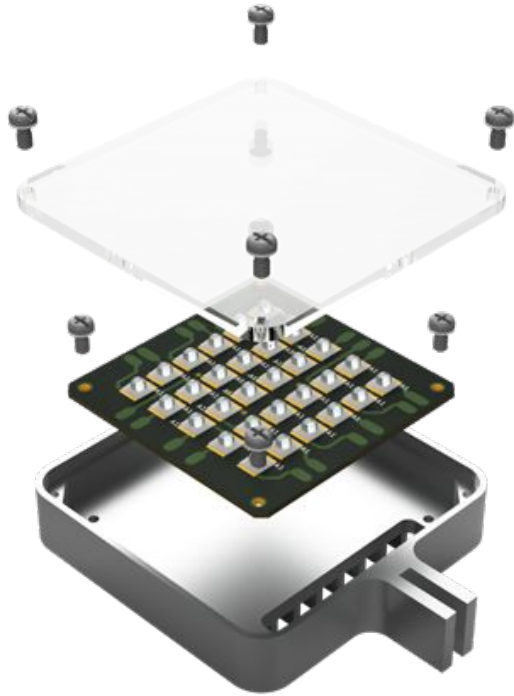




Rapid prototyping example: drink machine pump



PDP prototyping examples



PDP prototyping examples



Real world prototype example



Benefits of Prototyping

- Reduced risk
- Faster development
- **Enhanced communication**
- Improved user experience
- **Investor and stakeholder confidence**

Testing in Product Development

- Includes a prototype
- The sale or a better product
- No testing

Types of Testing

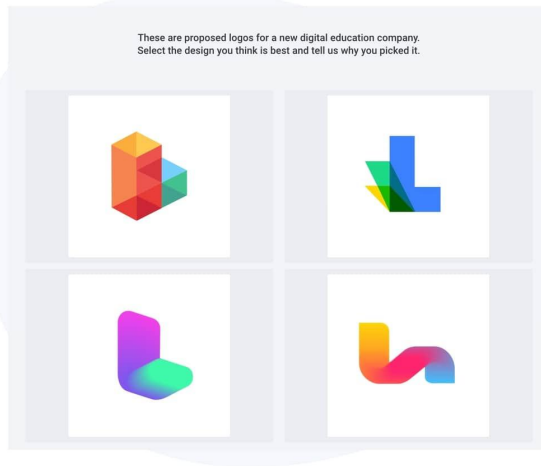
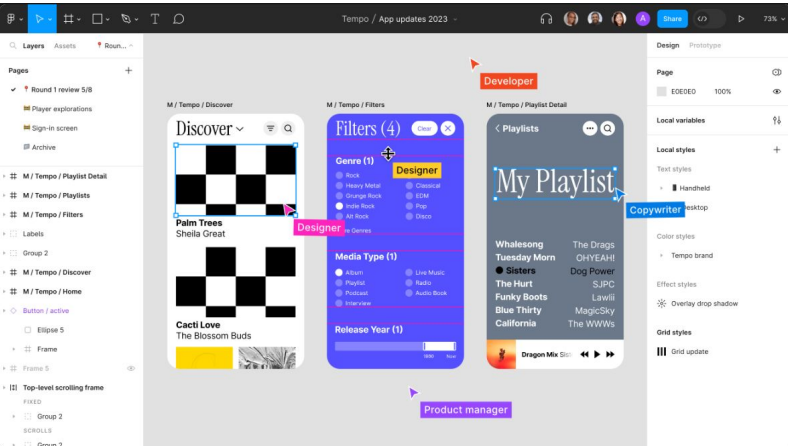
- Concept testing
- Customer testing

Importance of User Feedback

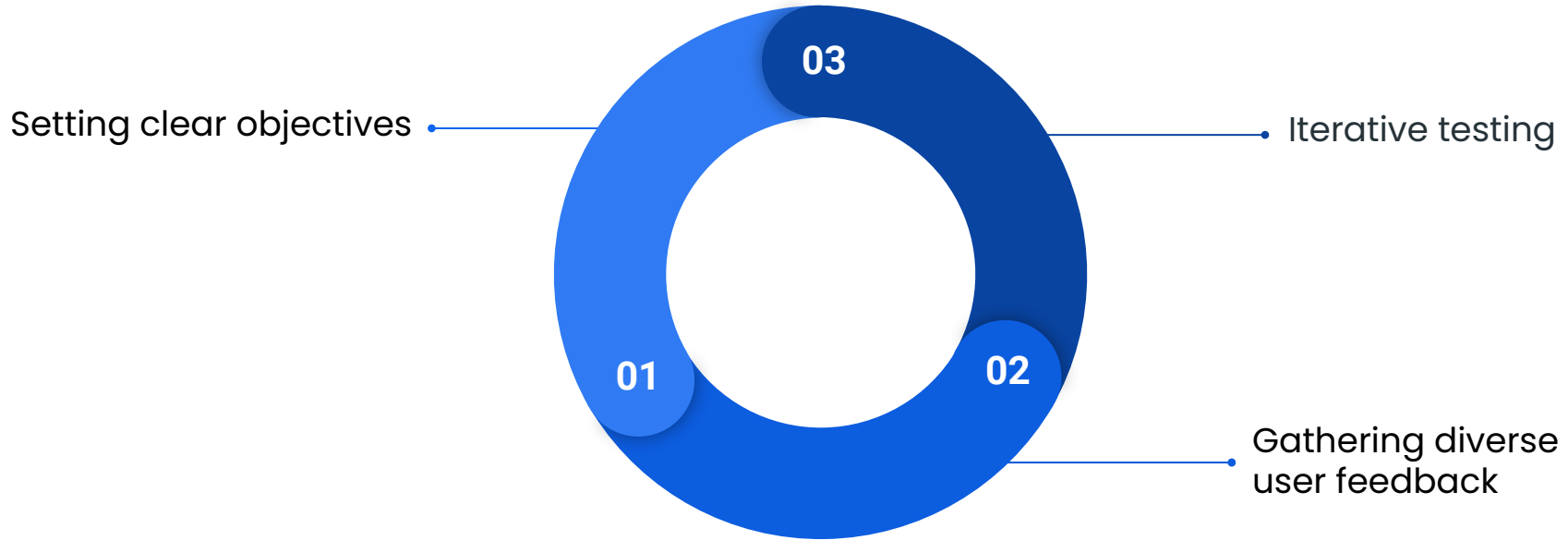
- Identifying pain points
- Prioritizing features
- Aligning with user expectations
- Improving usability
- Making the development process iterative

Prototyping and Testing Tools

- Figma
- UsabilityHub
- Crazy egg



Best Practices for Prototyping and Testing



Design quickly and test often

Challenges and pitfalls



Deficient planning

Over-engineering

**Inadequate
resources**

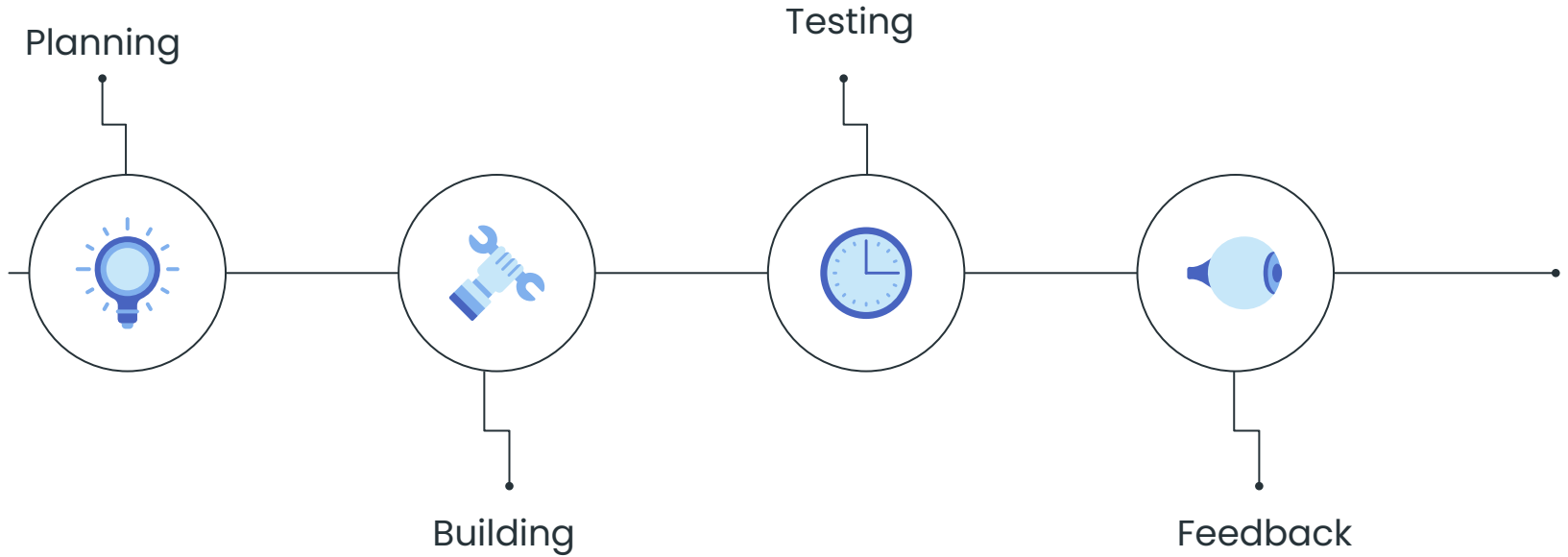
Ignoring alternatives

**Incomplete user
research**

Rushed testing

**Not enough user
feedback**

Conclusion



**Thank you for
your attention!**



