

# Y10 Graphics – Prototyping

## Key Words & Vocabulary

User Experience	Anthropometrics
Improve	Testing
Enhance	Feedback
Analyse	Adjust
Version	User Centred Design
Scale	Amend
Dimensions	Reduce
Ergonomics	

A **prototype** is an early sample, model, or release of a product built to test a concept or process. It is a term used in a variety of contexts, including semantics, design, electronics, and software programming. A prototype is generally used to evaluate a new design to enhance precision by analysis and users.

Prototyping is an integral part of design and User Experience because it allows us to test and improve our ideas quickly.

Name three advantages of prototyping

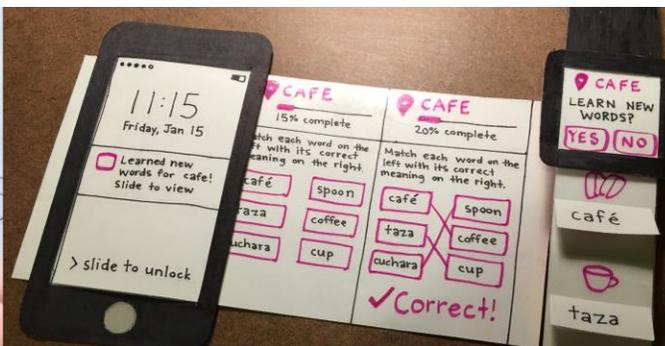
How has prototyping improved your design so far?

Which of these prototypes will you use for your dining experience and why?



### Sketches and Diagrams

Sketching is one of the earliest forms of prototyping you can use. Use sketches to illustrate your ideas and launch them into the real world — even the simplest and crudest of sketches can easily achieve that. Sketch simple illustrations of your concepts so that they don't exist only in your mind, hence allowing you to share these with your teammates for further discussion and concepting



### Paper Interfaces

Digital products like mobile apps, websites, and web services, as well as other screen-based products or experiences often require you to create a range of prototyping methods in the run up to the final design and development. Paper interfaces are used at the early stages of prototyping for digital products. You can create paper interfaces by sketching them out, or by drawing and cutting out usable parts of a user interface (such as a text field or a dropdown menu, etc.).



### Physical Models

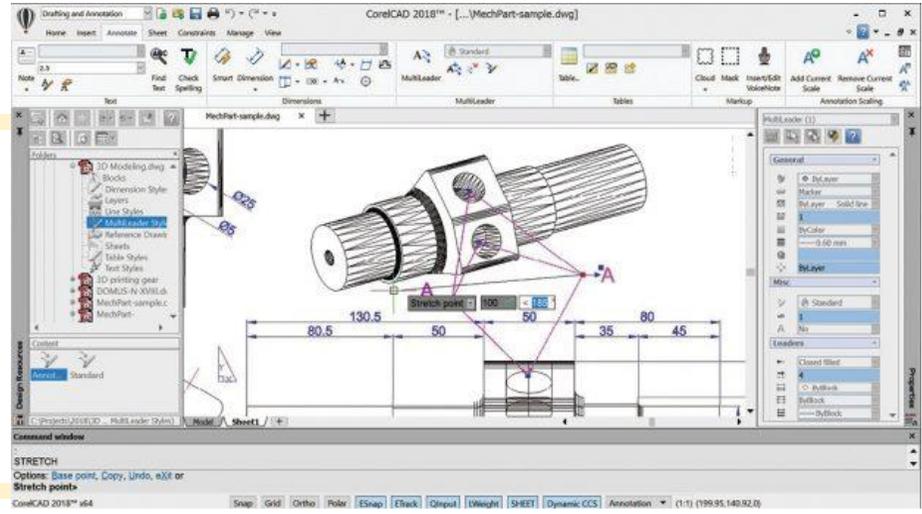
When the end result is a physical product, you can use a wide range of materials to build mock-ups for testing. You can use rough materials, such as paper, cardboard, clay, or foam, and you can also repurpose existing objects you find around you in order to build physical models.

The purpose of a physical model is to bring an idea, or two-dimensional sketch, to be physical, three-dimensional. This allows for much better testing with users, and it can spark discussions about the necessary adjustments and/or improvements.

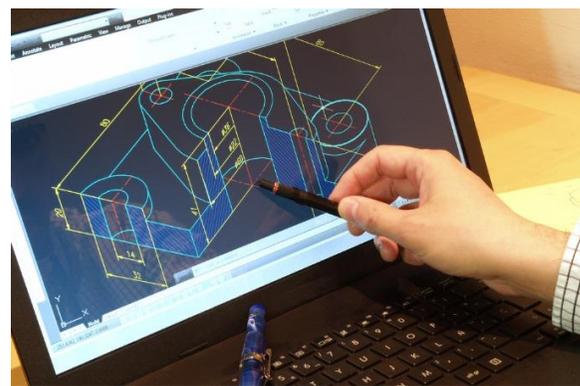
# Prototyping

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**CAD design**  
 Allows us to convert our designs into a physical objects faster and more economical than ever before. We can use tools in TechSoft to check our dimensions and quickly layout designs in technical drawings such as Orthographic to communicate ideas.

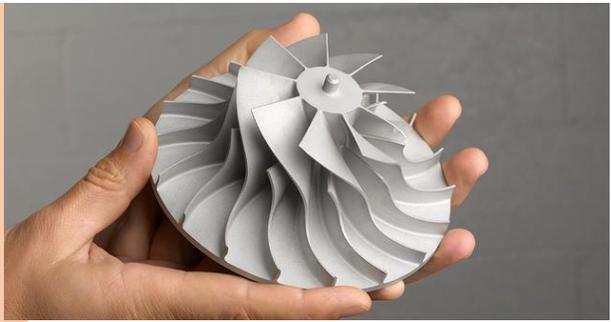


**3D Systems - Digital**  
 3D digital prototyping service helps design and engineering teams turn their ideas into real products quickly and efficiently, viewing the model from 360 degree angles allows designers to receive real-time product design feedback and concept testing.

- Can you put the prototypes in order of production?
- What is the purpose of prototyping?
- How do designers use focus groups for prototyping?
- What is the role of the client when discussing prototypes?
- Why is user-feedback / evaluation vital when prototyping?



**3D Systems - Printing**  
 Rapid prototyping with 3D printing is one of the most effective and efficient ways to test, iterate, and ultimately perfect your design concept as you move down the road to production. 3D printed prototypes are a crucial tool for rapidly making cost efficient design modifications before a product goes to manufacturing where these changes will be extremely costly.



Explore

Design

Create

Make

Evaluate