



Background

Computer-aided design, or CAD, is software that enables engineers to draft parts and view them in 3D. Dassault Systèmes SOLIDWORKS is one such program.

Project Description

The task for our project was replicating the speed and ease of cardboard prototyping with a similar experience in CAD. In the physical world, putting pieces together and gluing them is a simple process, but in CAD it's difficult to do. Current CAD technologies are very powerful, but not intuitive to beginners.



Beginners to CAD will use our app to simplify the process of learning to CAD. This will lower the barrier to entry for becoming a capable CAD user and inspire more people to become engineers.





If we can lower any barrier for entry, we can raise more engineers.

Design Principles

Novice-friendly

Intuitive

Using our app will feel closer to building and moving objects in the physical world.



Easy to Access

Many new users learn to CAD on a laptop, without tools that make CAD easier such as a mouse. Our solution must be portable and easy to acquire to improve that experience.

Our Solution

We developed a phone app that allows users to move objects in SOLIDWORKS by moving their phone. They can rotate and translate parts simply by selecting them and moving their phone in the direction that the object should move in. This will allow users to quickly envision how CAD components fit together.



