

**CONCEPT** CAD stands for Computer-Aided Design. CAD software packages provide designers the ability to create, edit, visualize and simulate any 2D or 3D drawing, map or model digitally.



## EXAMPLES

While there are many CAD software packages available today, every software brand has pros, cons and varying price levels. Here are a few software packages utilized by industry professionals:

- **FUSION 360**
- **AUTOCAD**
- **TINKERCAD**
- **SOLIDWORKS**
- **CATIA**
- **SOLID EDGE**

## BACKGROUND

Prior to the early 1960s, engineering, architectural and construction designs were completed by hand. One of the early driving forces of CAD development was for military advancements regarding missile and aircraft designs. As CAD programs improved and were implemented in different sectors of industry, designers were able to create more accurate 2D and 3D technical drawings which could be easily modified and readily distributed to end users.

## REAL WORLD

At Nebraska Public Power District, CAD software is used to design projects and replacement parts. Due to the age of some of our generation equipment, replacement parts are no longer available. Our drafting technicians custom design replacement parts using CAD software and manufacture those parts on-site by sharing or uploading those drawings to our fabrication team. Once a CAD drawing has been completed, those drawings can also be used with other software such as Augmented Reality, Computer-Aided Manufacturing, Computer-Aided Engineering, 3D printers and more.