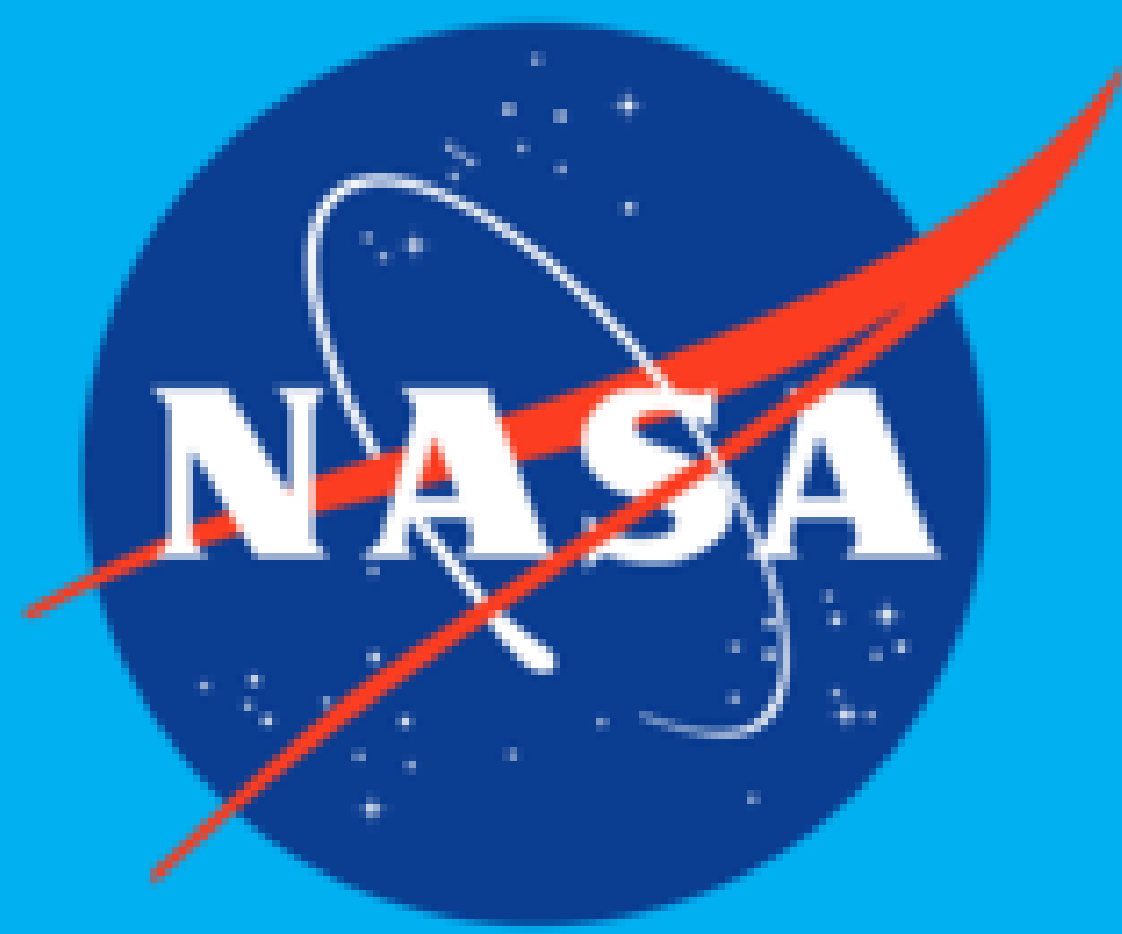




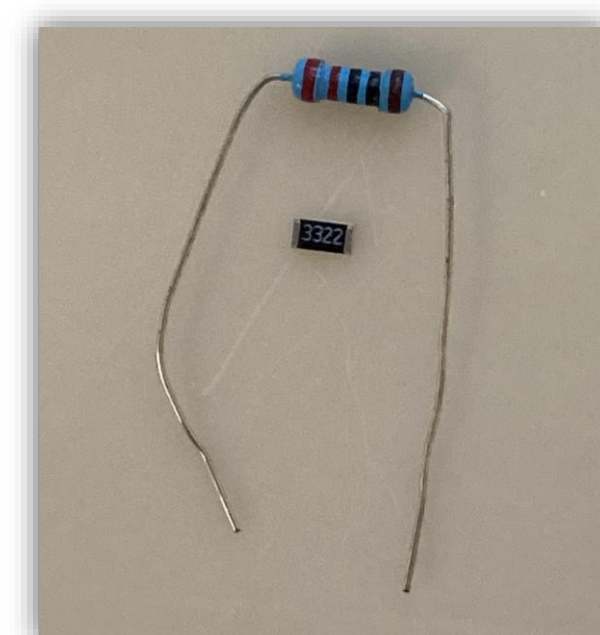
Prototyping Electronics: SMD to THT Adapter

What's SMD and THT?

These are different types of packages for electronics.

SMD – Surface Mount Device

THT – Through Hole Technology



In most production boards, are small with most up-to-date tech.

In most hobby kits and prototyping labs, are easy to handle and clunky.

Why the Adapter?

Leverage the benefits of each type.

Faster Prototyping

Prototyping with state of the art and easy to handle components allow for faster iterative lifecycles.

Built-in Factory Validation

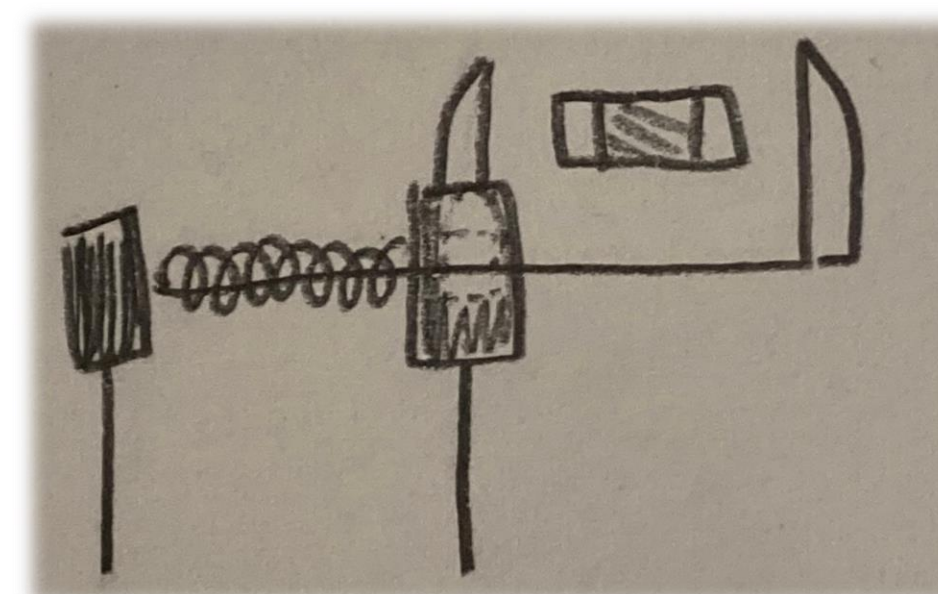
Testing with production components eliminates the tedious need to test their effectiveness out of the box.

High-Fidelity Test Results

By using the same component in production as in testing, test performance matches final performance more closely.

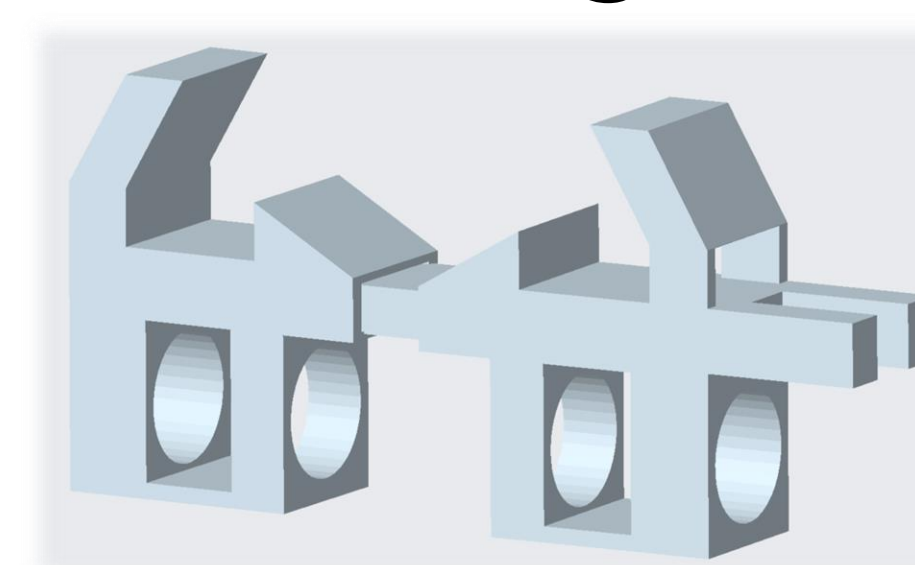
Prototype I

Concept



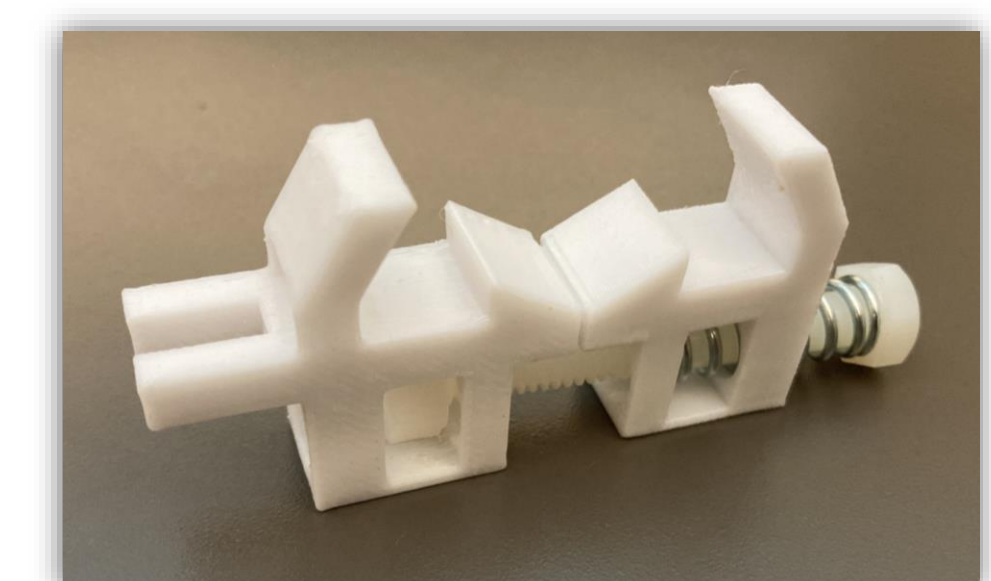
Fixed leads, external spring, wire required, two boards required.

Design



CREO used to model and fit custom parts with McMaster Carr components.

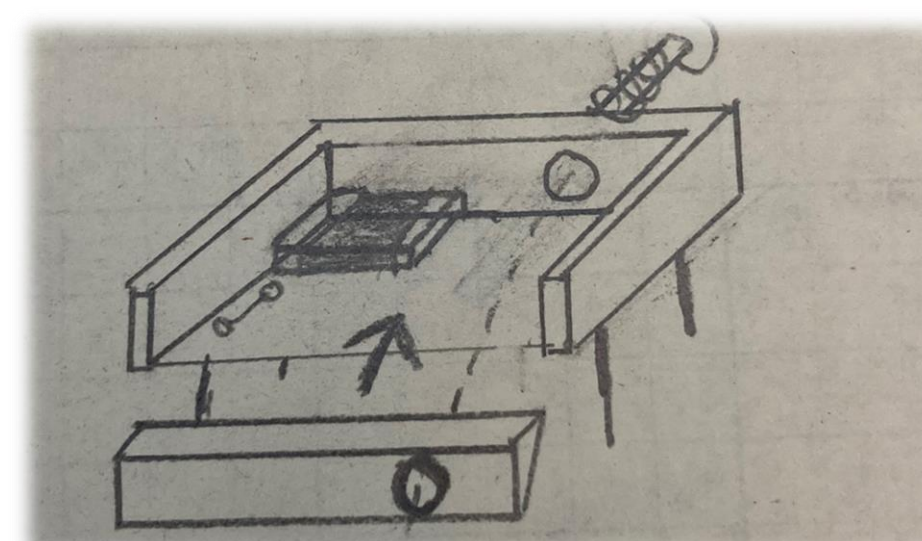
Result



Too big, too complex for simple problem. Multiple boards and wire not needed.

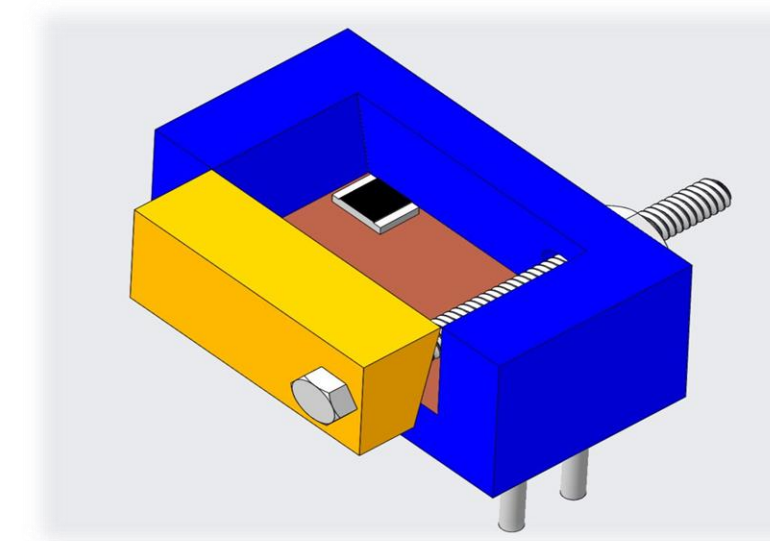
Prototype II

Concept



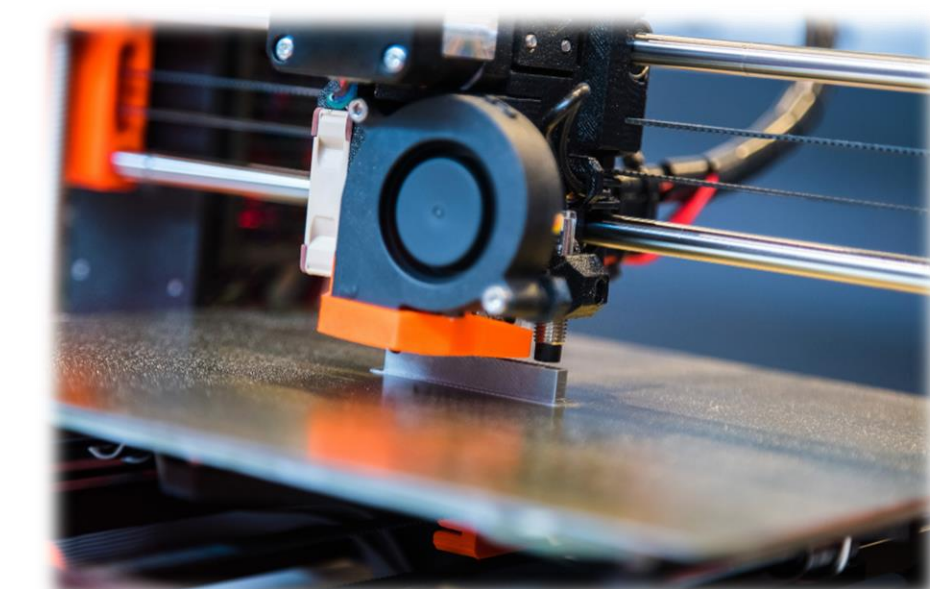
Fixed leads, screw driven, wire removed, one board required.

Design



CREO used again, utilizing special collision to size custom ramps.

Result



To be determined!

Commercial Potential

Replace THT's

THTs in prototyping and production boards will have significantly decreased value, allowing such an adapter to take their place in the market.

Default Learning Tool

Adoption of such a tool can expedite learning at the hobby level, as well as the traditional schooling level.