

Project Info

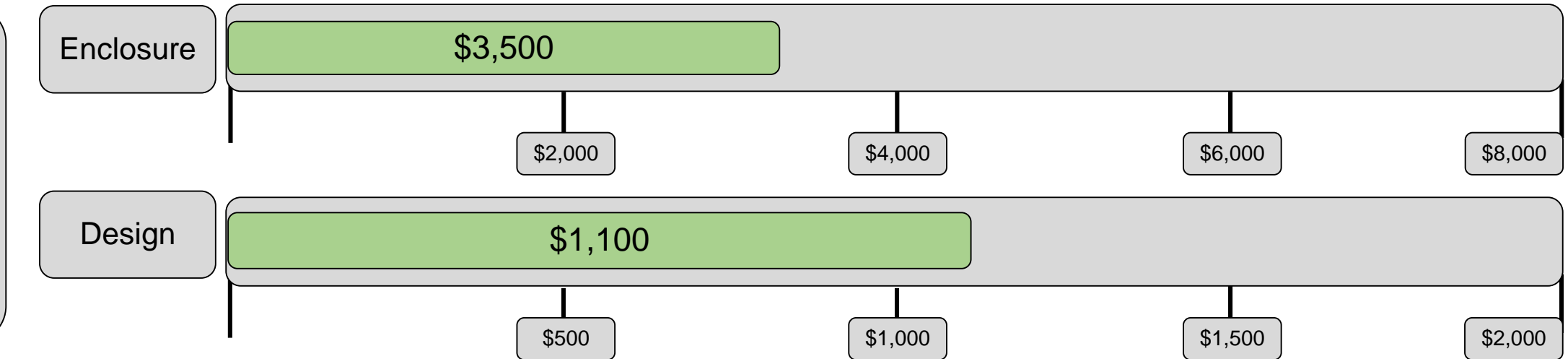
## Project Background

AFRL uses a process known as “Laser Powder Bed Fusion (LPBF)”, which distributes metal powder in an even layer over a build plate, and then a laser traces a path in the powder to fuse the material together. The process continues, layer by layer, building up a full printed part. This process results in a large amount of unfused powder.

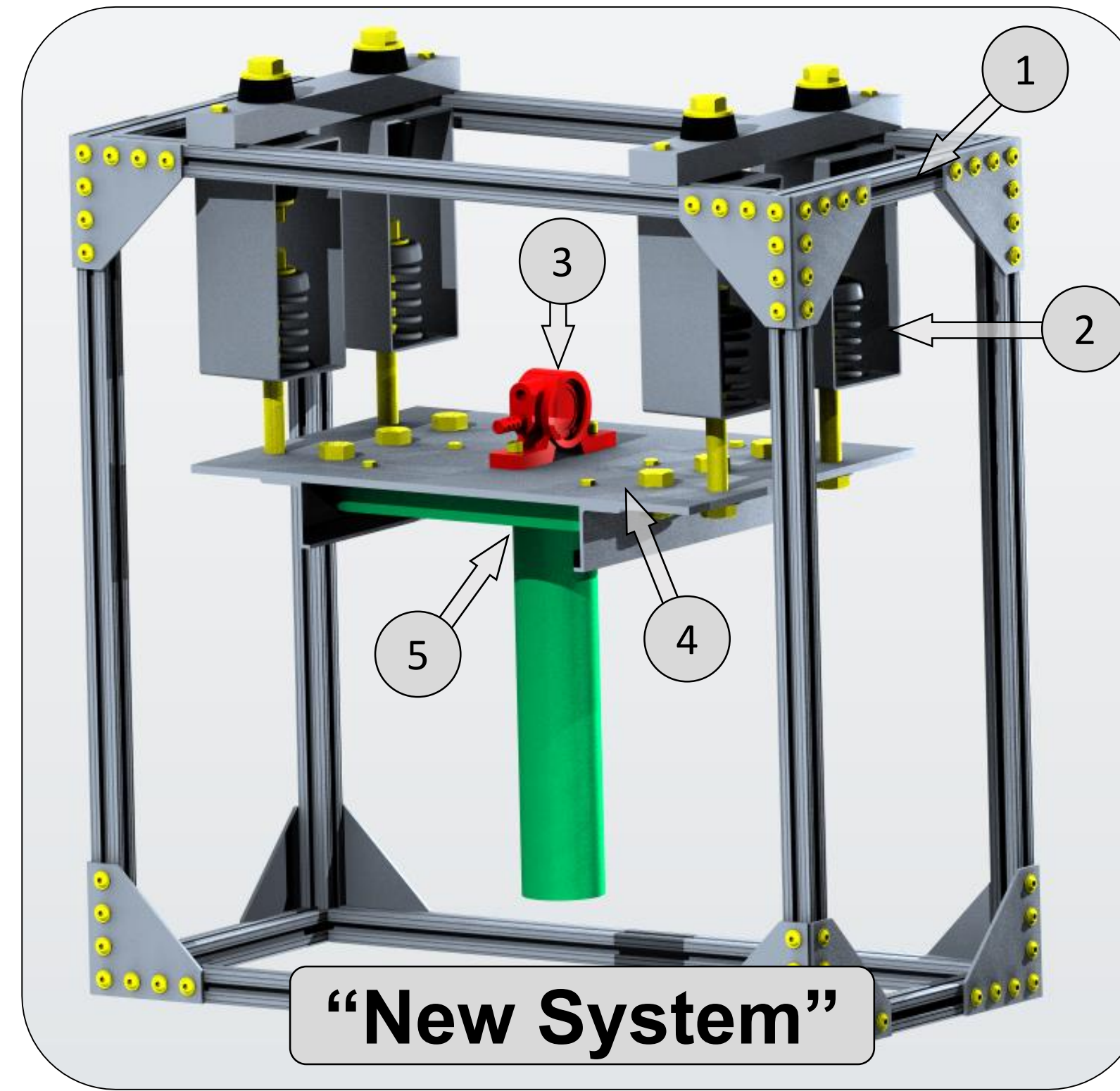
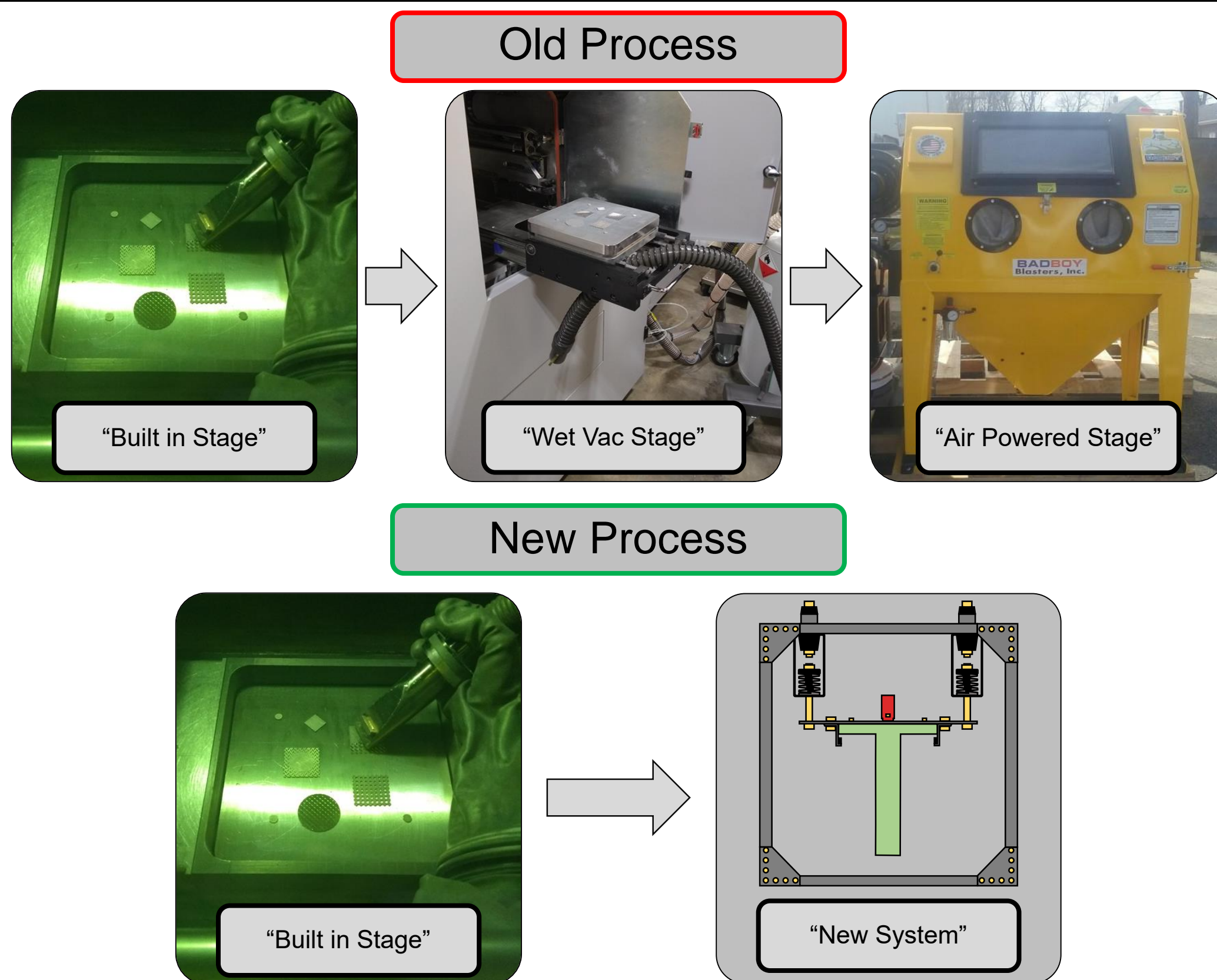
## Project Description

The objective of this project is to design a device which increases the amount of recovered steel powder in a metal additive manufacturing process. This device should be compatible with existing hardware and processes while ensuring the safety of the operators.

## Budget



Design



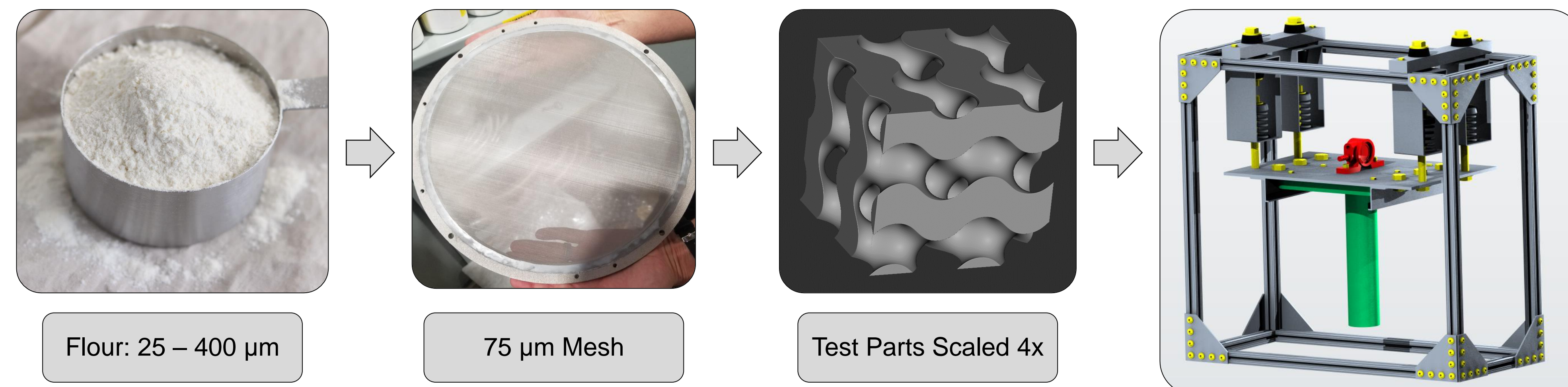
### Design Components

- 1 Structure
- 2 Damping
- 3 Pneumatic Vibrator
- 4 Mounting Plate
- 5 Build Plate and Part
- 6 Enclosure/Barrier



Validation

## Test Procedure



## Printed Test Parts

