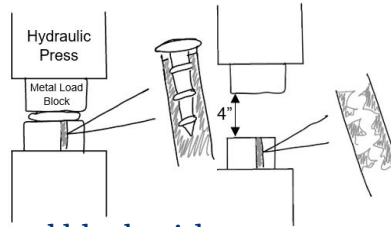


Need and Objective: Reduce delays in spinal implant testing

- Spinal implants tested for FDA clearance
- Mangled plastic inserts in metal load blocks require removal after testing
- Current removal process damages blocks and costs \$1500 monthly



Objective: Remove plastic pieces from the metal block without causing any damage to the test block

Design Inputs:

1. Fit within the 14" space between the two loading blocks
2. Remove the plastic insert in <5 mins, avoid further delays
3. 10N vertical force needed to remove plastic insert

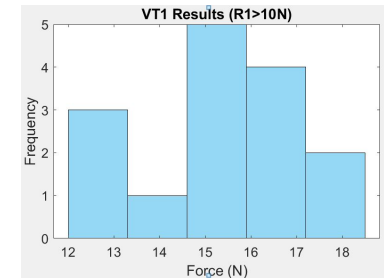
Testing Results

Maximum Force Applied (R1): Find the maximum vertical force applied before detachment

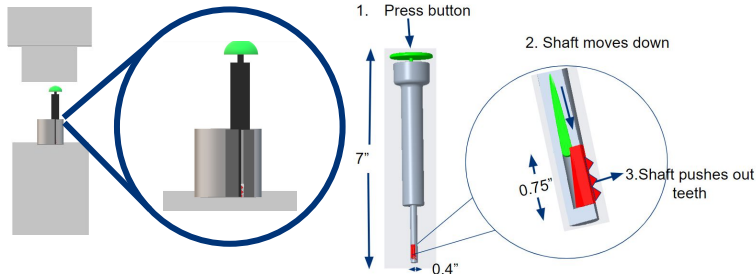
- R1 is met; Average Applied Force >10N

Requirement:
>10N

Results:
15.3N



Solution



Solution removes the plastic pieces

Future

Impact: This device allows for faster product development, more spinal implant options available to the public.

Future Plans: Machine device from aluminum and identify how to use the device at different angles.