Scissor lift Final Review

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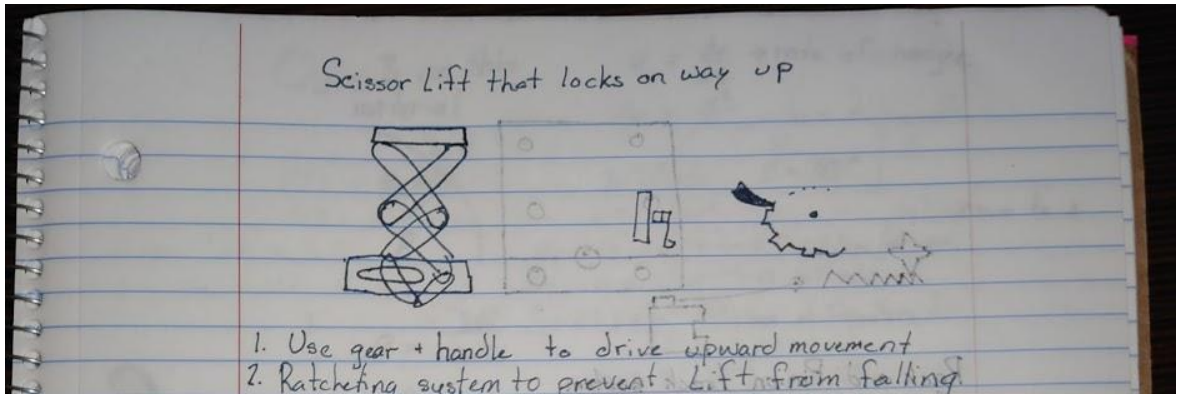
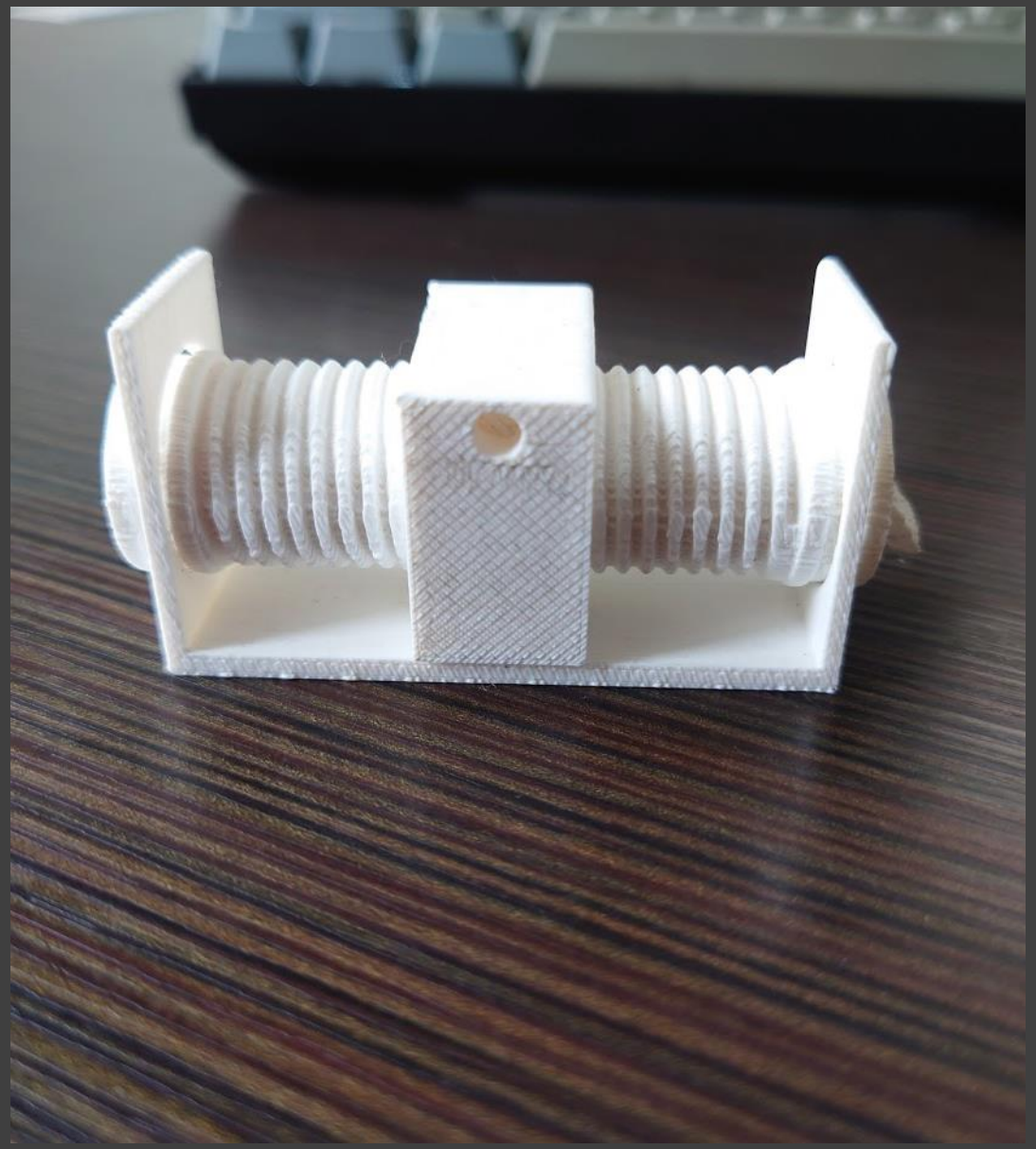
Original Design Idea

- Scissor lift driven by a lead screw
- Uses a ratcheting mechanism to prevent lowering motion
- Impossible to design a system with a contained leadscrew as a single part



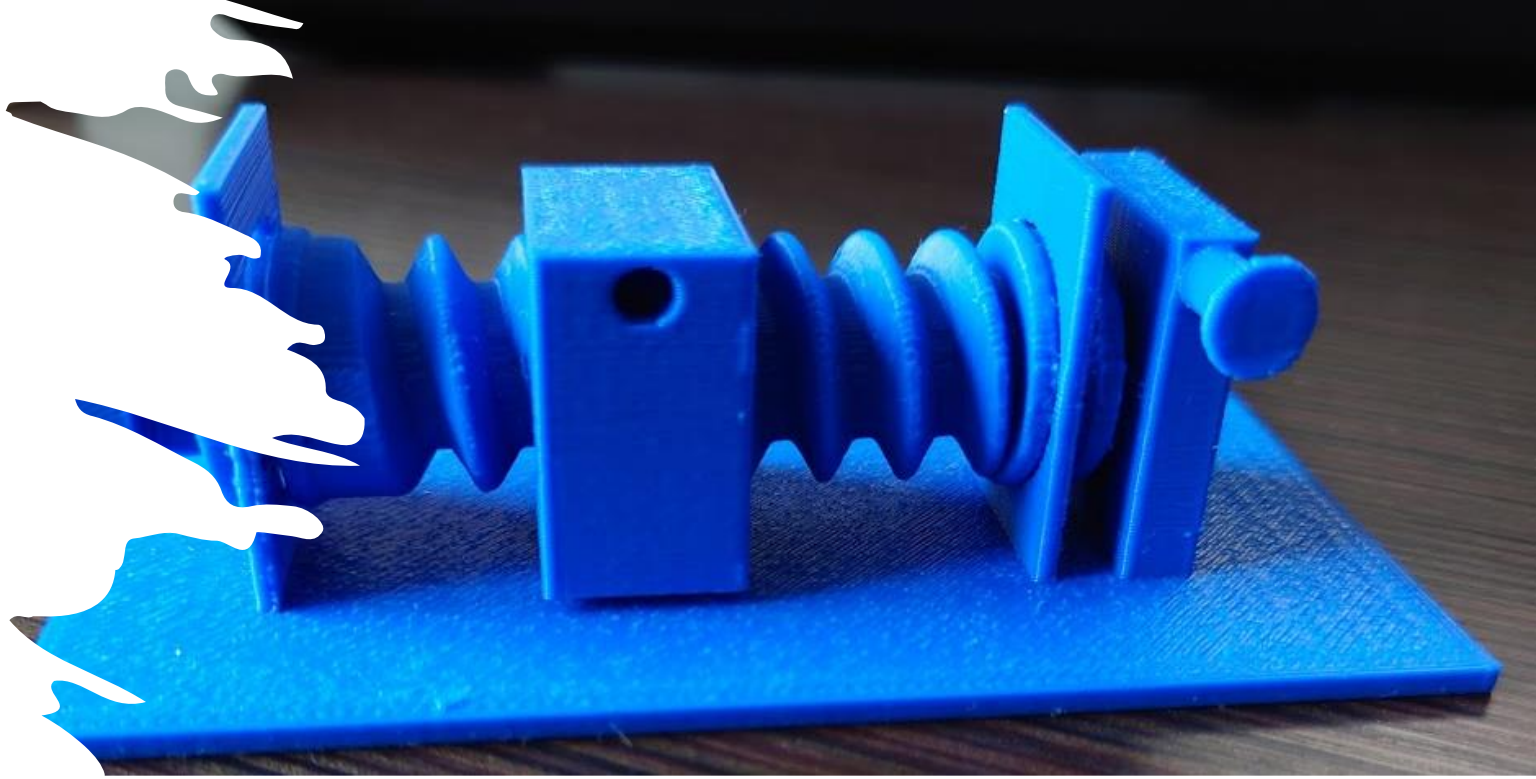


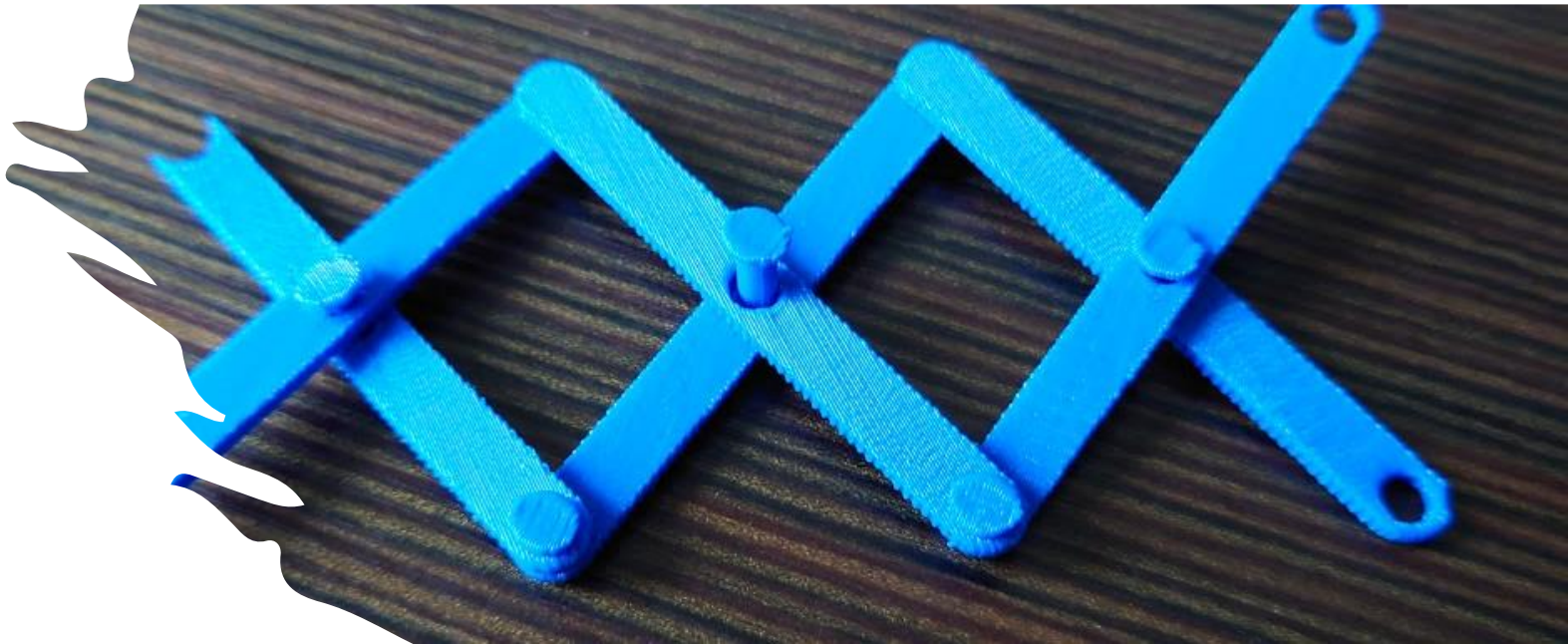
First and Second Test Print

- First Print: too small and Broke
  - Price: 1.78
- Second Print: Screw meshed with the carrier
  - Price 2.86

Third Test Print

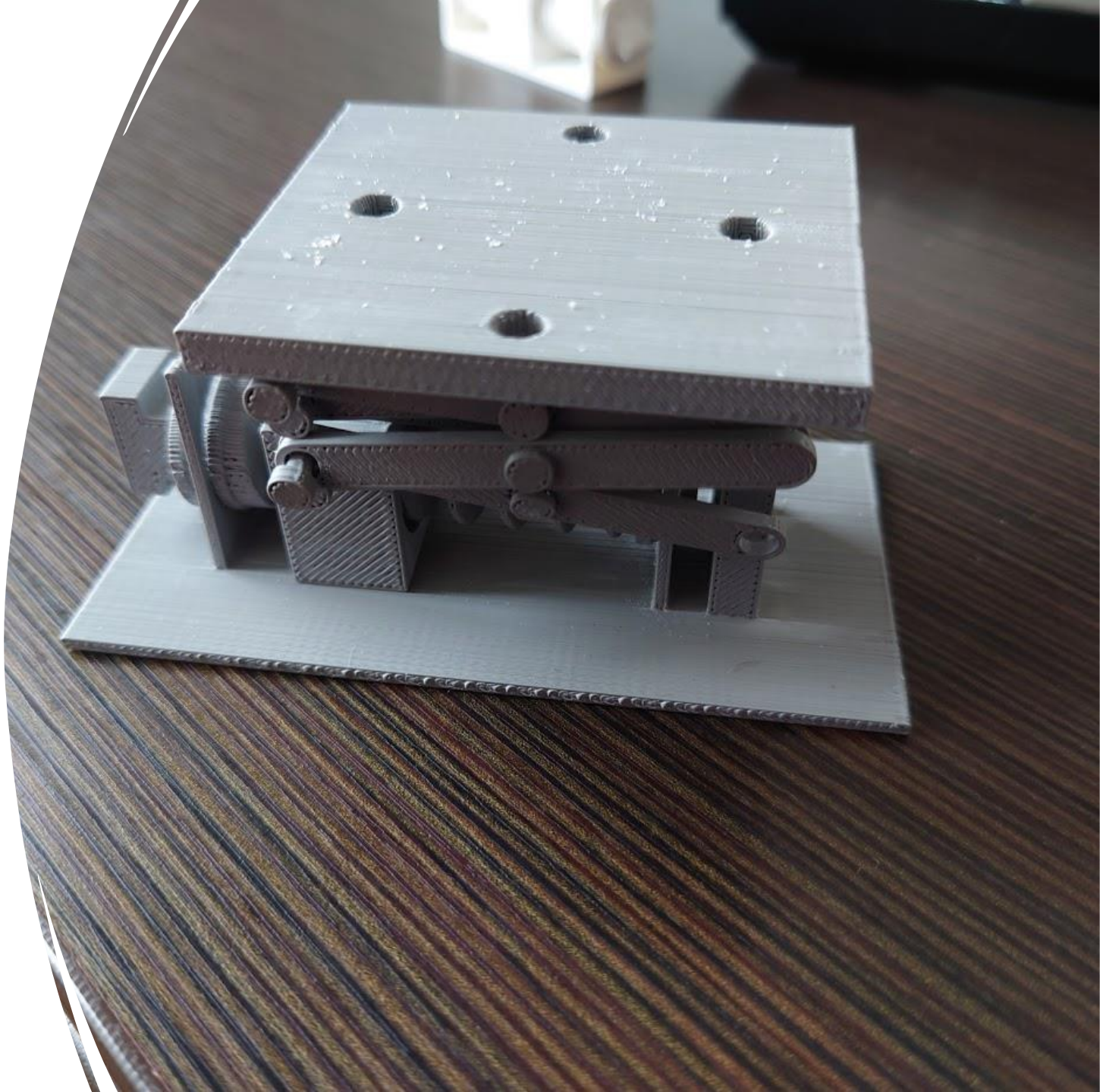
- Screw/Nut worked
- Scissor links worked well together
- Connections to carrier were incorrectly designed and snapped off
- Price: 12.53

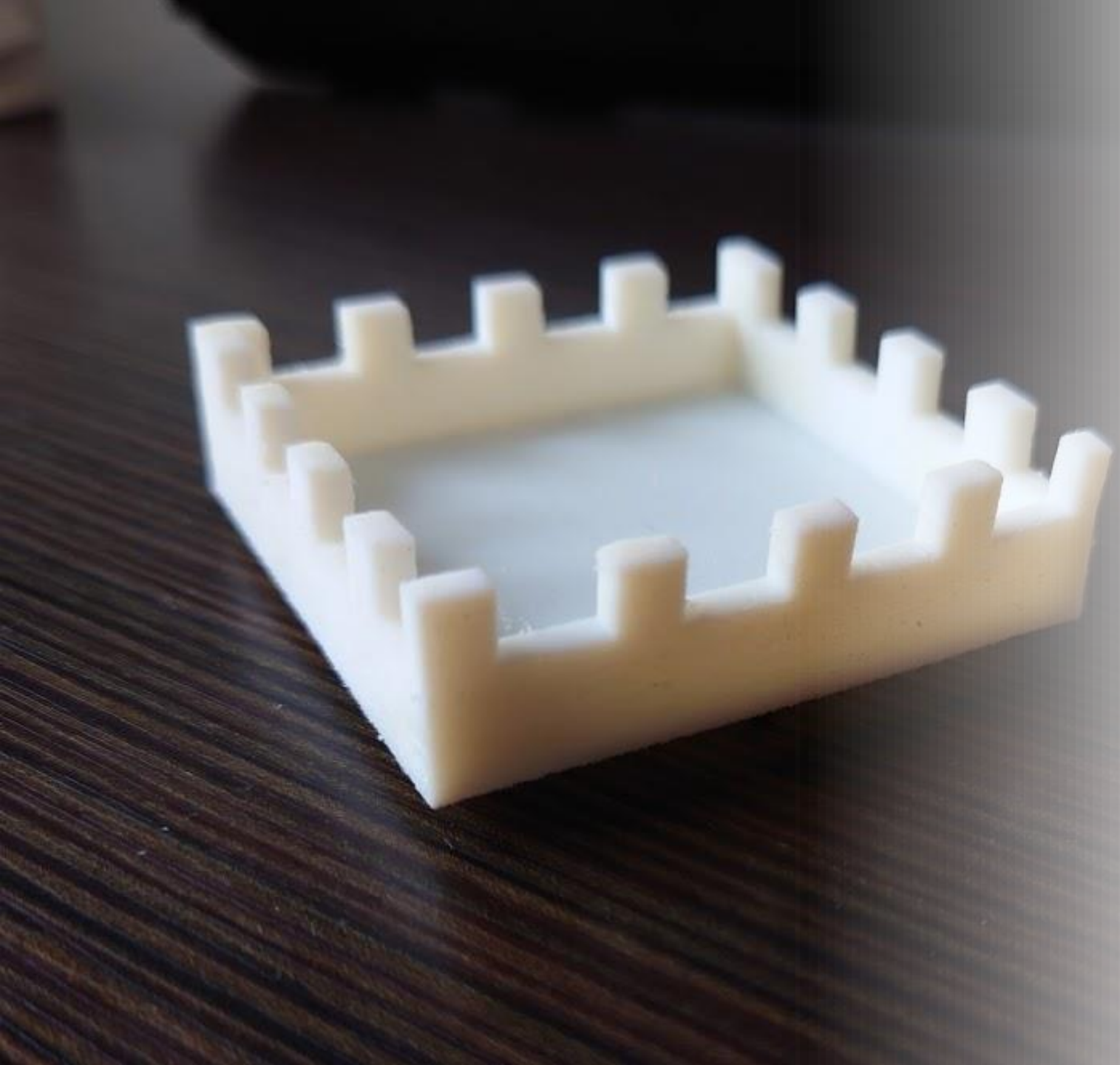




Final Print

- Screw/Nut have a yet undiagnosed issues
- Scissors links worked well
- Attachment points to carrier were much improved
- Printing imperfections left some parts more brittle and lead to snapping
- Price: 20.94

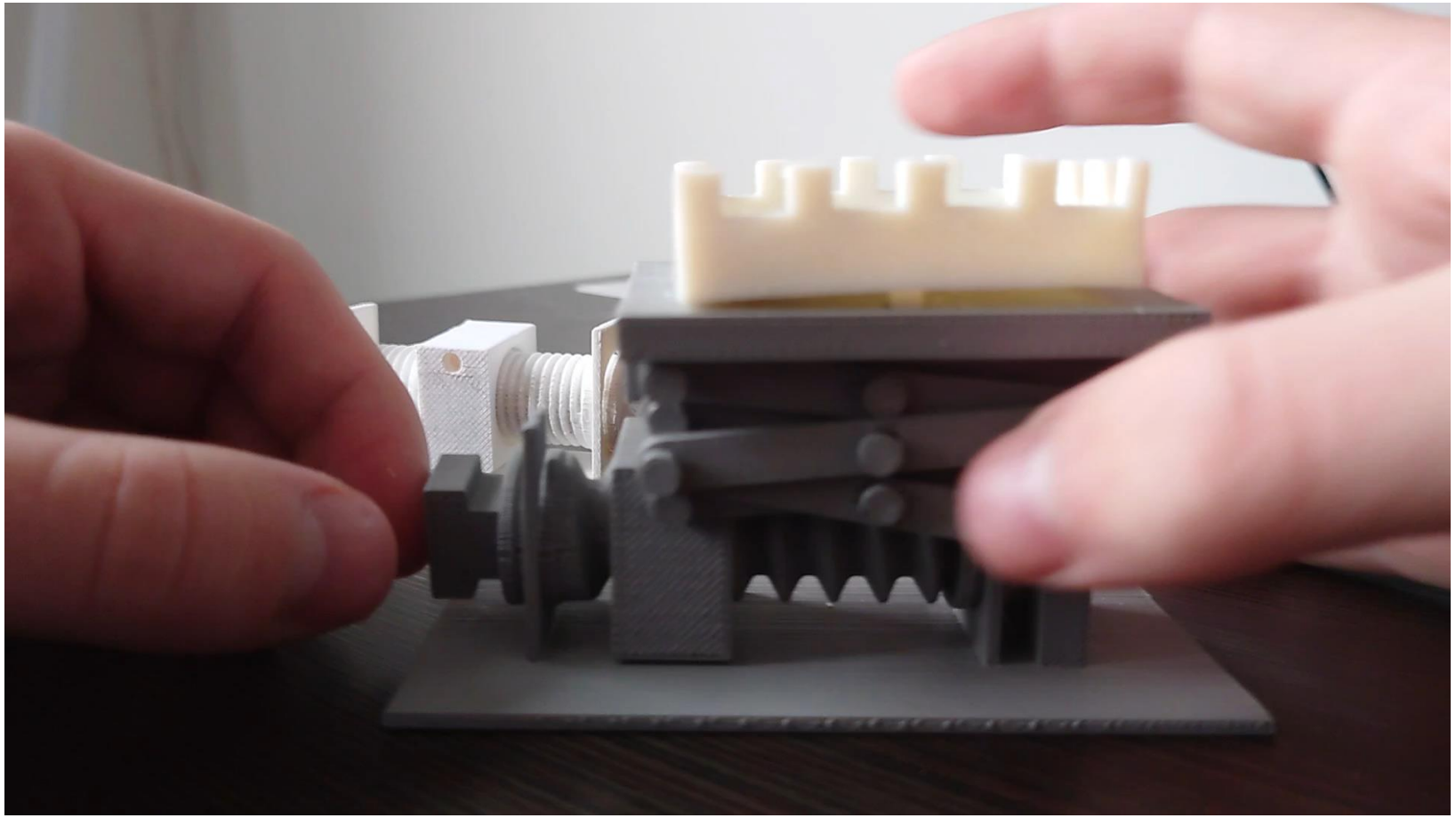




Separate Technology part

- Originally chose flexible resin on Form 2
- Ended up with J750 due to lack of resin
- Price 5.43

Video



Reflections

The positioning of the nut on the screw seems to be a vital design decision

Would choose to reprint with a much higher resolution to try and avoid some of the print failures

Will attempt to reprint in the Fall to see if these changes will help with a moveable print

Final Budget

- Print 1
  - 1.78
- Print 2
  - 2.86
- Print 3
  - 12.53
- Print 4
  - 20.94

- Final Budget Remaining:
- 58.29