

V1.0

First Print — First Lessons

PURPOSE

- Test rotor-to-housing interaction
 - Validate gear ratio
 - Identify tolerance issues
 - Confirm geometry can be printed
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HOUSING

Print Quality: 7/10

Dimensions: 75mm x 60mm

Issues: Flexible, potentially wrong shape

Rating: 7/10

ROTOR

Print Quality: 6/10

Dimensions: 50.8mm side length

Issues: Gears too small, bounding on housing wall

Rating: 6/10

GEARS

Mesh Quality: Bad

Binding: No binding on stationary gear, rotor gears too small

Rating: 4/10

MOTION TEST

Rotor Rotates: No

Full Orbit: No

Smoothness: 2/10

LESSONS LEARNED

- Housing geometry is printable

- Rotor geometry looks correct
 - Current gears interfered with rotor rotation
 - Gears require full redesign
 - Rotor may require redesign
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CHANGES FOR NEXT VERSION

- Remove gears
 - Test rotor clearance independently
 - Rework gear geometry
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