



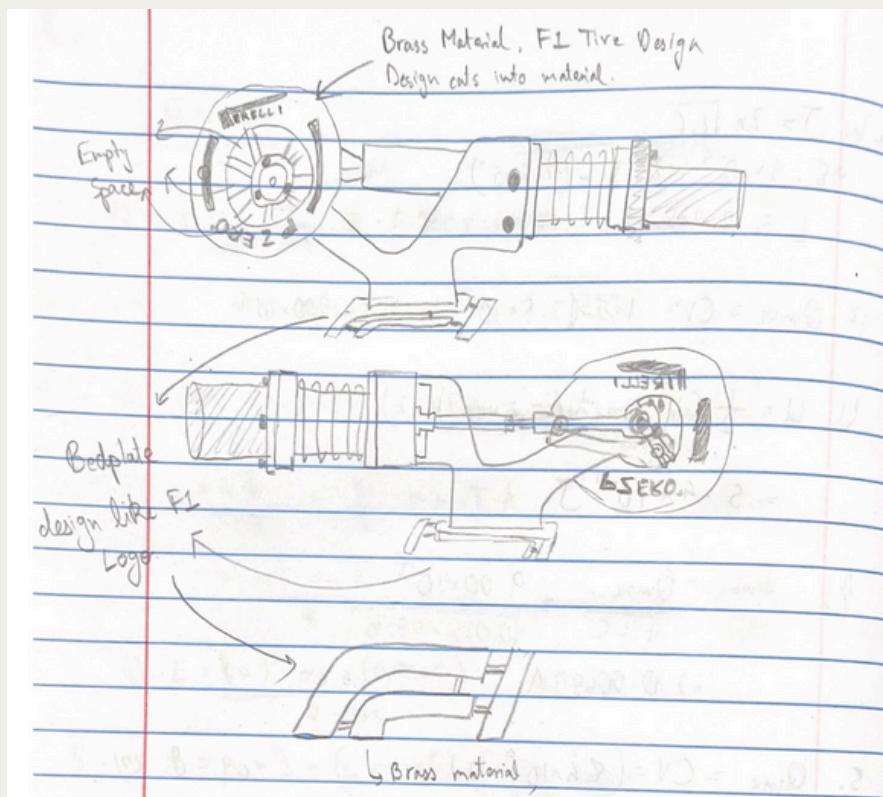
Penn
Engineering
UNIVERSITY of PENNSYLVANIA

Stirling Engine Model

Designed on Solidworks and made using aluminum, brass, stainless steel. This working modeal was my introduction to manufacturing methods, the Machinist's Handbook, and GD&T.

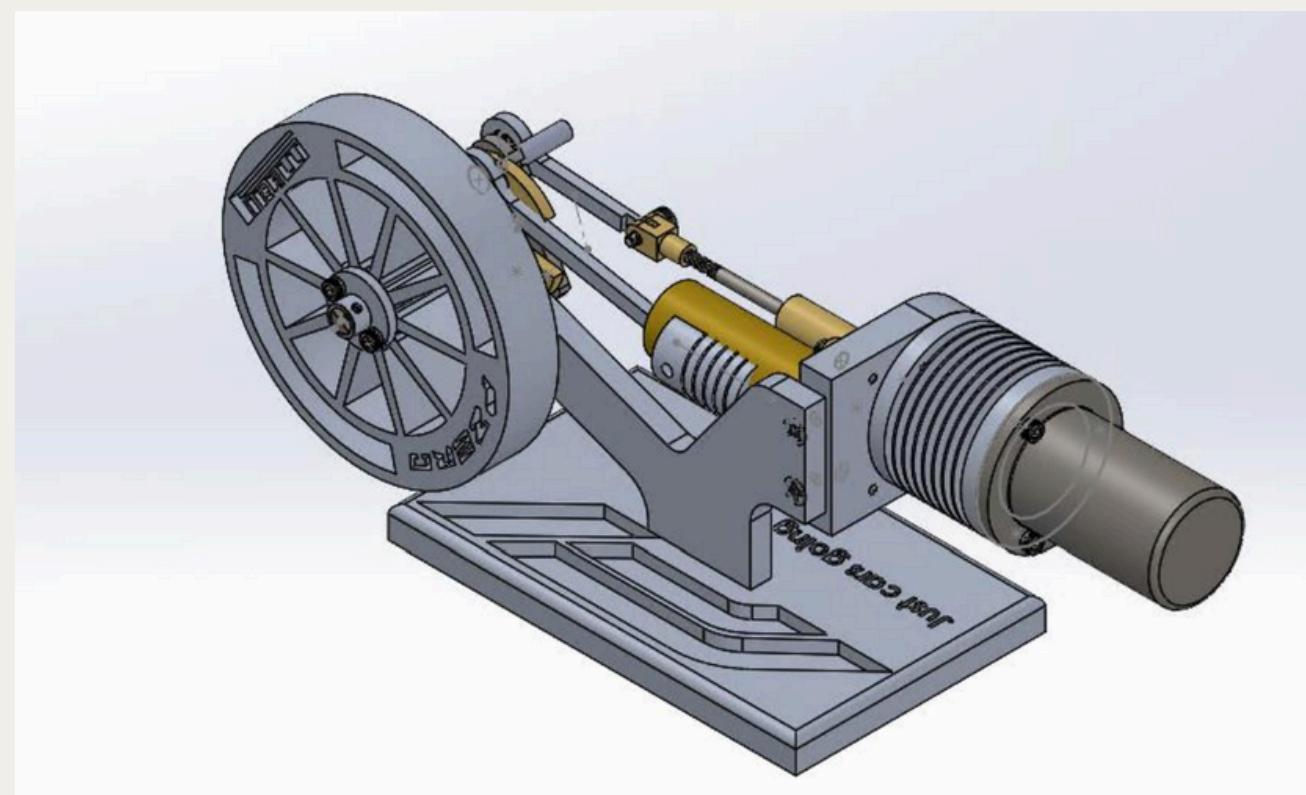


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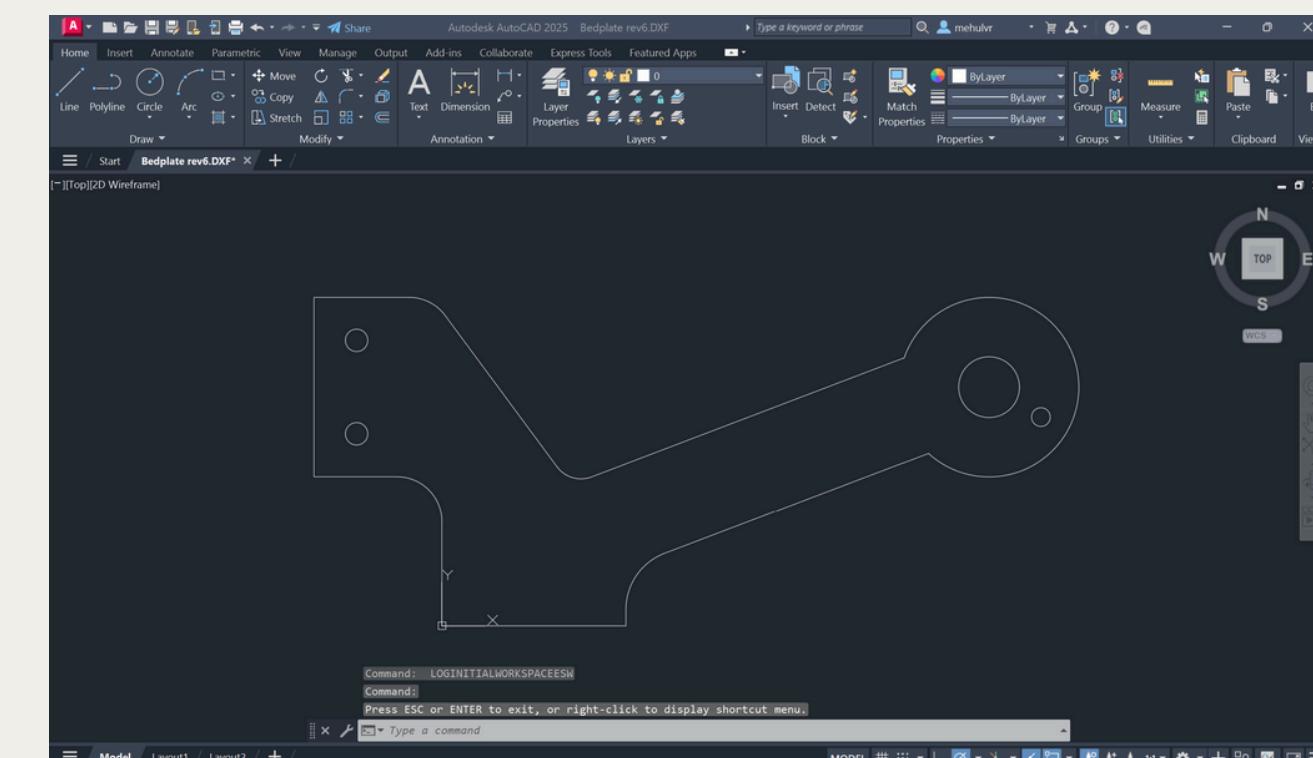


Initial Sketch of Design Idea

- Used 3-axis Prototrak Vertical Mill with CNC capabilities (toolpaths generated using Mastercam)
- Used horizontal lathe for drilling, boring and tapping operations on cylindrical parts.
- Assembled engine ran at ~950 rpm powered by butane torch lighter

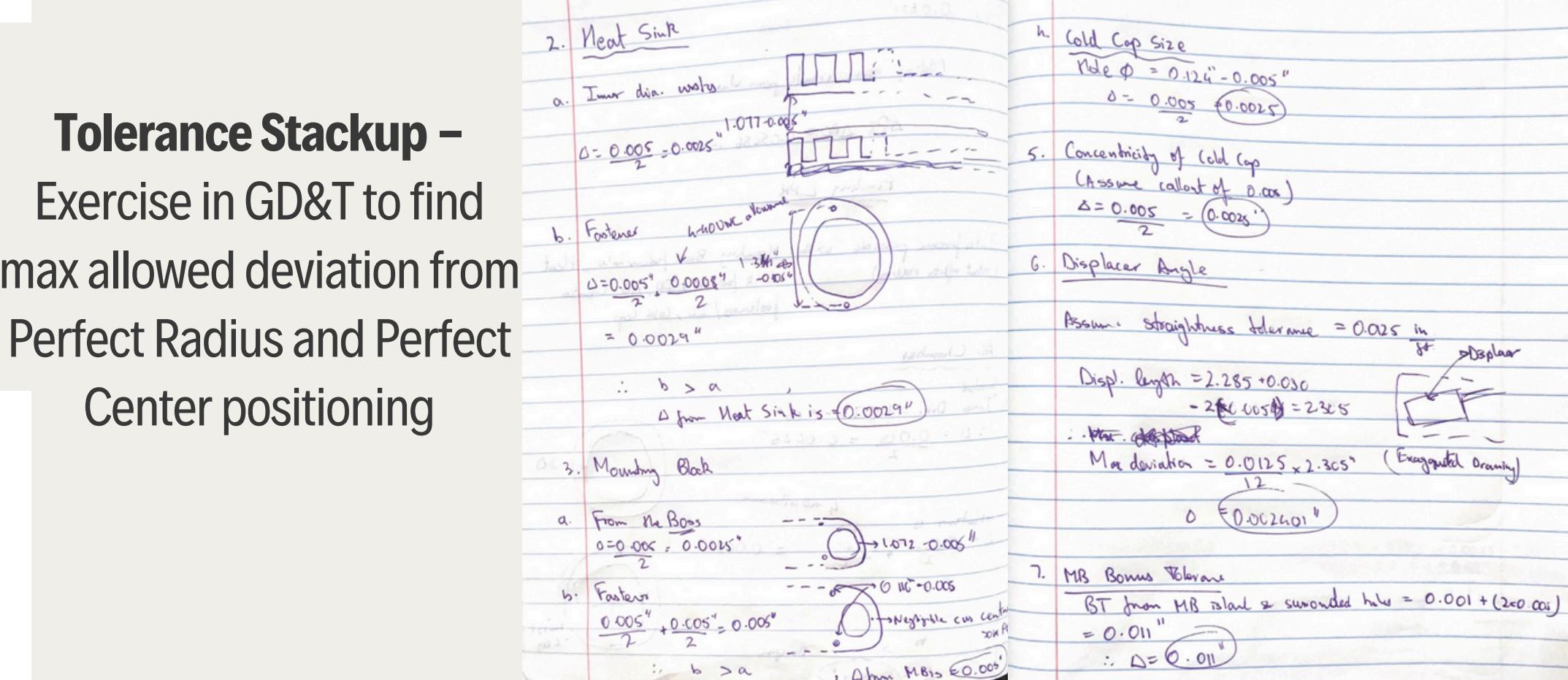
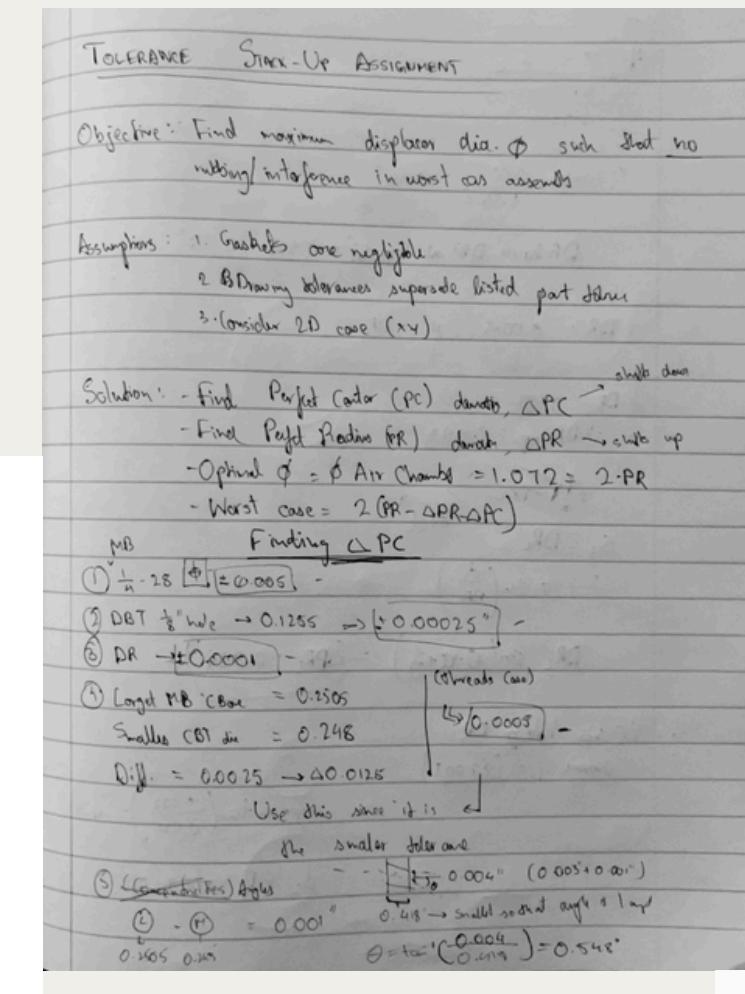
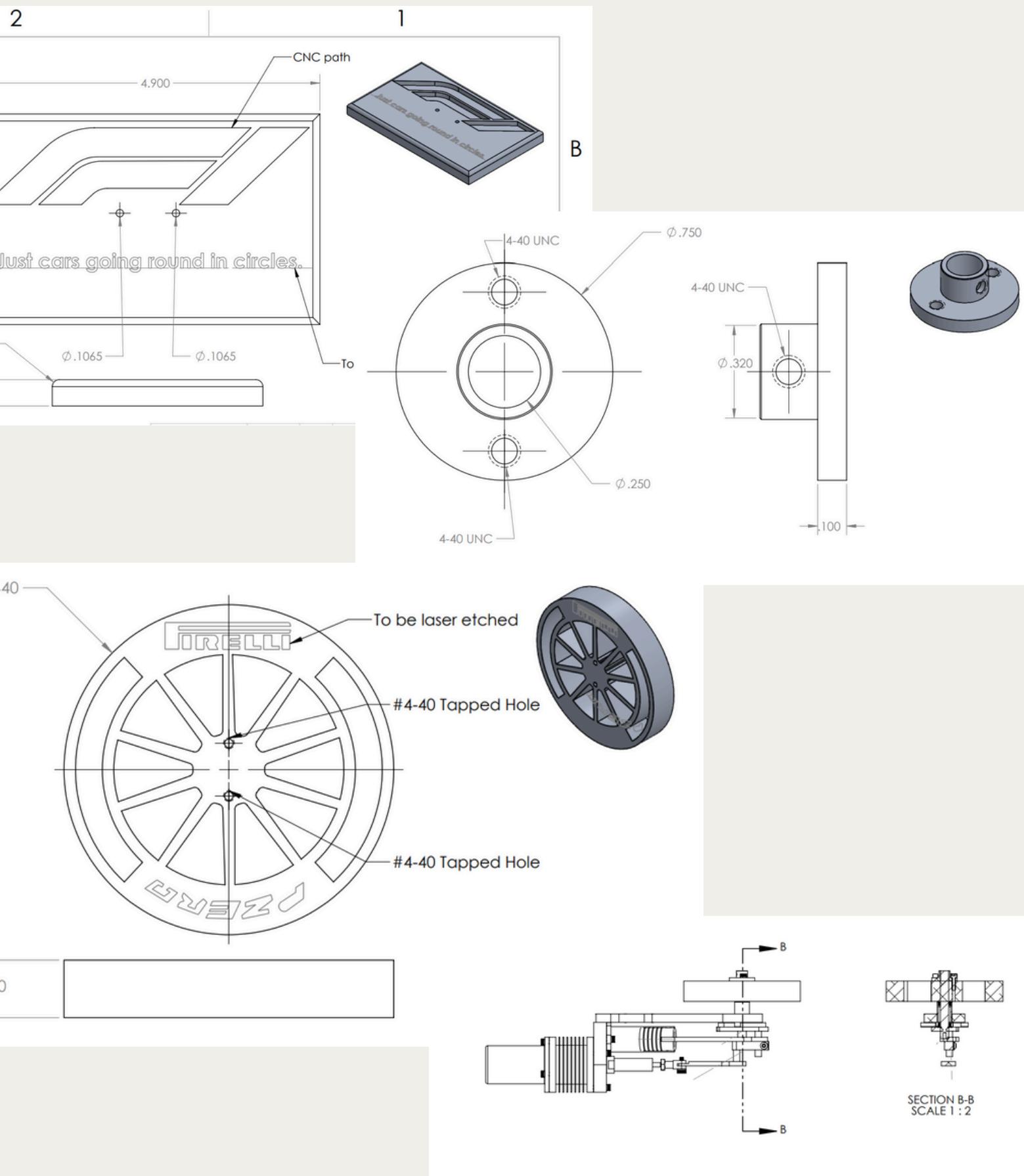


CAD Render – Solidworks assembly of parts
(designed from drawings) with working gear mates



DXF drawings generated for outside vendors

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Drawings – Solidworks drawings for parts and assemblies