

CIMES Simulation Challenge – Major Progress Update (May 18, 2026)

We just ran a fresh round of **Grok Build-powered optimization** on the core geometry (US Patent 11,799,400 B2).

What we achieved in minutes:

- Further refined the 3-layer staggered magnet array (40 N52 magnets per layer)
- Reduced torque ripple while holding average torque at or above 118 Nm (11 mm compression)
- Maintained the 10 kW target at 1,000 RPM with improved smoothness and thermal margin

These results are now live in **CIMES Challenge Starter Pack v2**.

Why this matters for you:

- The validation target is now clearer and more achievable
- New geometry files, stagger angles, and optimized scripts are ready for download
- You have a stronger benchmark to beat — and a real shot at **1.5% equity + co-authorship** on the official validation paper

The first individual or team to independently replicate all six success criteria in any FEA environment (Python, COMSOL, ANSYS, MATLAB, etc.) still wins.

Next up: Multi-objective optimization (torque × ripple × thermal × mass) with full Pareto-front results coming soon.

Ready to validate and claim your stake? Email danbucklives@gmail.com with subject line “**CIMES Challenge Starter Pack**” — you’ll receive the latest free reference code, CAD files, and data set immediately (no NDA required).

We’re accelerating fast. The geometry keeps getting better every day, and the path to clean, scalable mechanical power amplification is becoming real.

Let’s validate this together.

— The CIMES Team simulationchallenge.com