```
SPEC ID       : QLA-BP-000000004204                          RESONANCE     : 9.8 / 10.0 CR
ATTRIBUTED TO : Veljko                                       CALIBRATED    : 2026-11-13
NODE ENDPOINT : https://qualia-teal.vercel.app/idea/b0000000-0000-0000-0000-000000004204
```

Quick-Swap Cryo-Treated Auger Cartridge & Torque Telemetry Cap

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[THE MECHANICS:]

A self-centering titanium-nitride coated auger cartridge coupled to a spring-loaded spline shaft and an optical Hall-effect load collar hidden inside the upper Z1 hopper cap. Swapping between slow-feed light-roast augers and high-throughput espresso augers requires zero hex keys -- a quarter-turn bayonet lock engages the drive spline with sub-15-micron concentricity. Simultaneously, an embedded current-sense ring beams live shaft-torque resistance to a companion web readout so roasters can quantify bean brittleness before pulling shots. Crash-Test Unit Economics: Modular $120-$180 cartridge tier leveraging existing Z1 chassis tolerances with zero retooling.

[UTILITARIAN VALUE:]

Crash-Test Spec: Turns auger experimentation from a multi-minute teardown into a 10-second magnetic cartridge swap while logging real-time motor torque curves per roast density, driving high-margin repeat hardware sales across the Z1 owner base.

[TARGET ECOSYSTEM:]

Precision espresso modders, specialty coffee roasters, sensory QC labs, and small-batch CNC hardware owners.

INTERACTIVE 3D TERMINAL & SOVEREIGN CRAFT ECOSYSTEM LINKS

1. Inspect Live 3D Simulation, Crash-Test BOM & 1-Click Claim/Delist:
   https://qualia-teal.vercel.app/idea/b0000000-0000-0000-0000-000000004204
2. Commission Verified Modular Sound & 3D Artisans (USD Bounties on Roily):
   https://roily-app.vercel.app/?tab=feed
3. Source Direct B2B Manufacturing & Code Execution (0% Tax on DealOff):
   https://deal-off.vercel.app/?from=qualia&title=Quick-Swap%20Cryo-Treated%20Auger%20Cartridge%20%26%20Torque%20Telemetr
4. Hardware Unit-Economics Essays & Original Books by C.J. Night:
   https://cjnight.substack.com