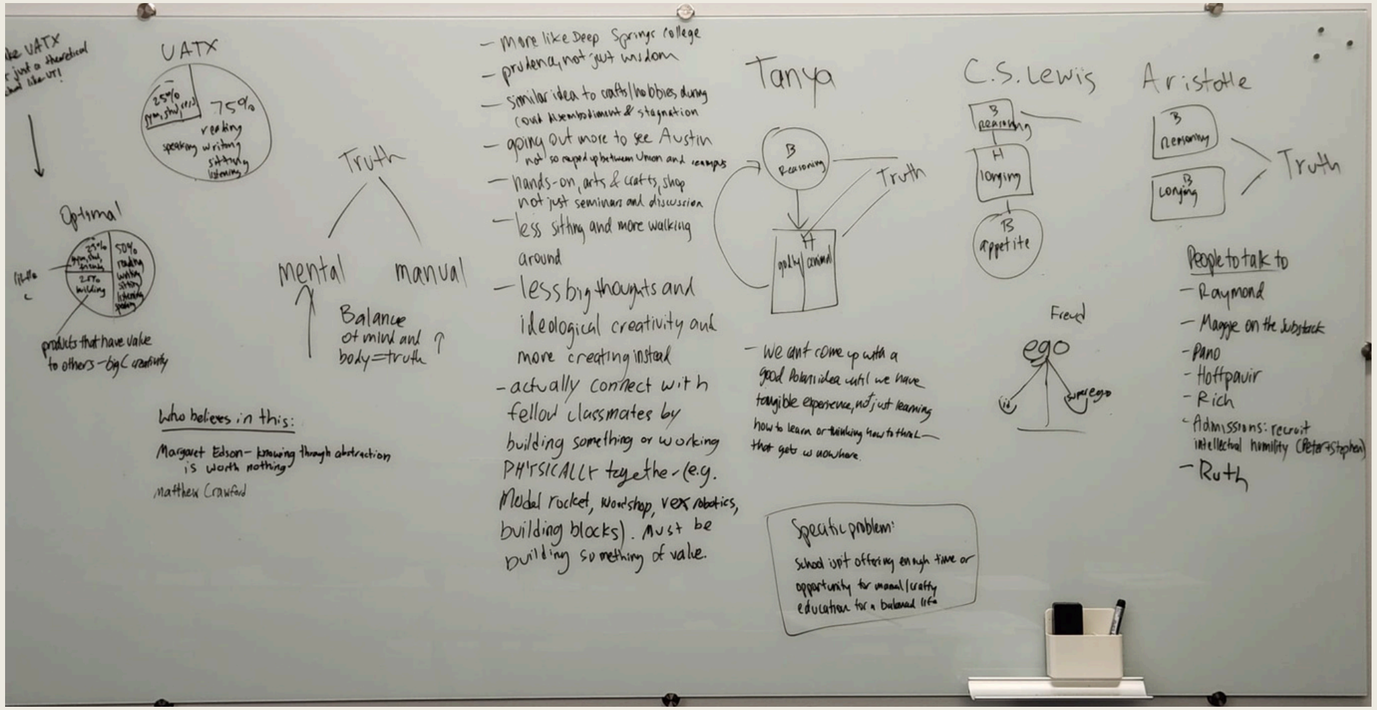
UATXcavators

Digging a $20,000 hole

August 2025

From Reading to Doing

A philosophy class about the value of the trades sparked a simple idea: stop just talking about hands-on work. Start building. This was our plan to make it real at UATX.



Visiting TBC

At The Boring Company (TBC), we watched top engineering students command massive, mud-covered tunnel boring machines (TBMs). *Why not us?*

Our First-Principles Advantage

UATX is a startup university built from first principles. By doing the same, we can prove that it's possible to compete with schools that have far greater prestige and resources, including UPenn and MIT.

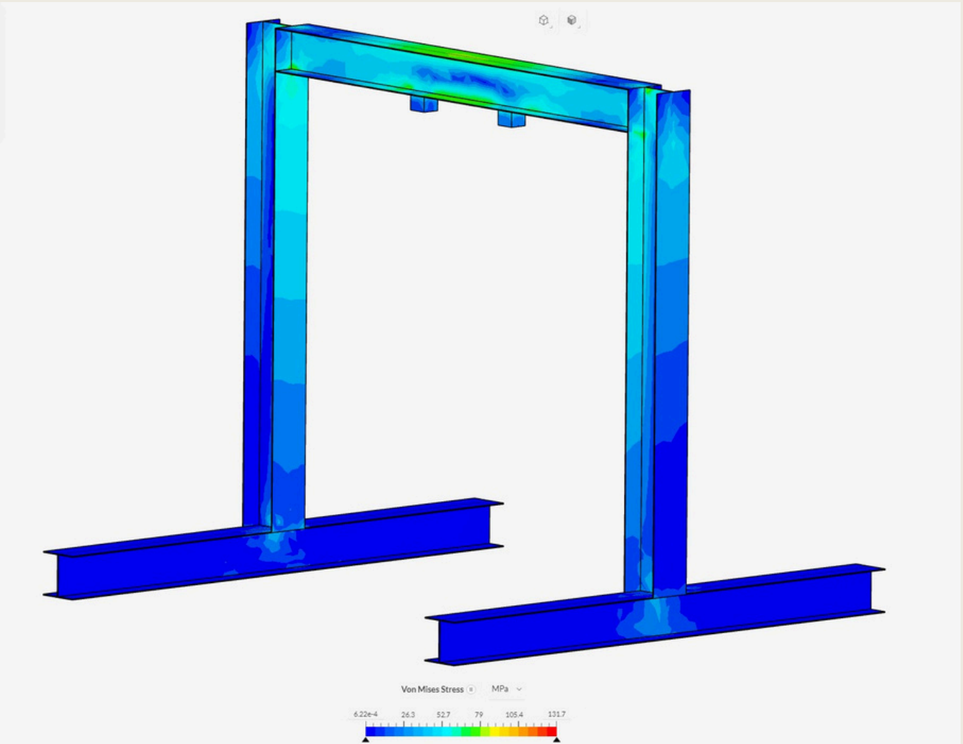
Not-a-Boring Competition

- Hosted by Elon Musk's Boring Company (TBC) in March 2026.
- Vertical digging challenge: a hole at least 1m deep with a .5m diameter.
- 400 university/independent engineering teams and only 10 get to the finals.
- No prize money, just tunneling innovation.

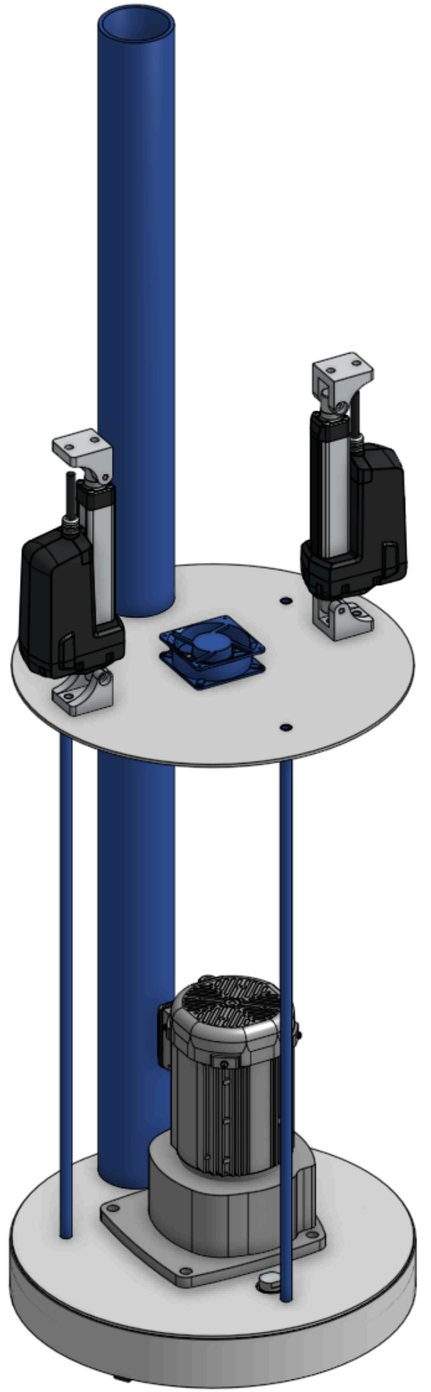
Proof of What Grit Can Do

Started with no funding. No lab. No expertise. We have 6 months left. So we:

- Sent more sponsorship emails in 2 months than in our entire lives (350+).
- Learned how to CAD and run simulations from scratch.



🔗Link to Our CAD



They have prestige. We have progress.

While other teams flex rankings, we're getting ready to transport muck.

- Completed an I/O list. ⚡
- Mapped torque, thrust, and power needs. ⚙️
- Laid out PVC flow pipelines. 💧
- Finalized LOTO and PPE quotes. 🦺
- Secured $2,000+ value from in-kind sponsorships with SimScale, Master Builders Solutions, and MSC Industrial Supply Co. 🤝

What We Need

- Modest in-kind sponsorship—a partnership, not just a transaction. All donations are **tax-deductible** through UATX, a nonprofit university.
- 20-30 minute technical call.

Why Sponsors Care

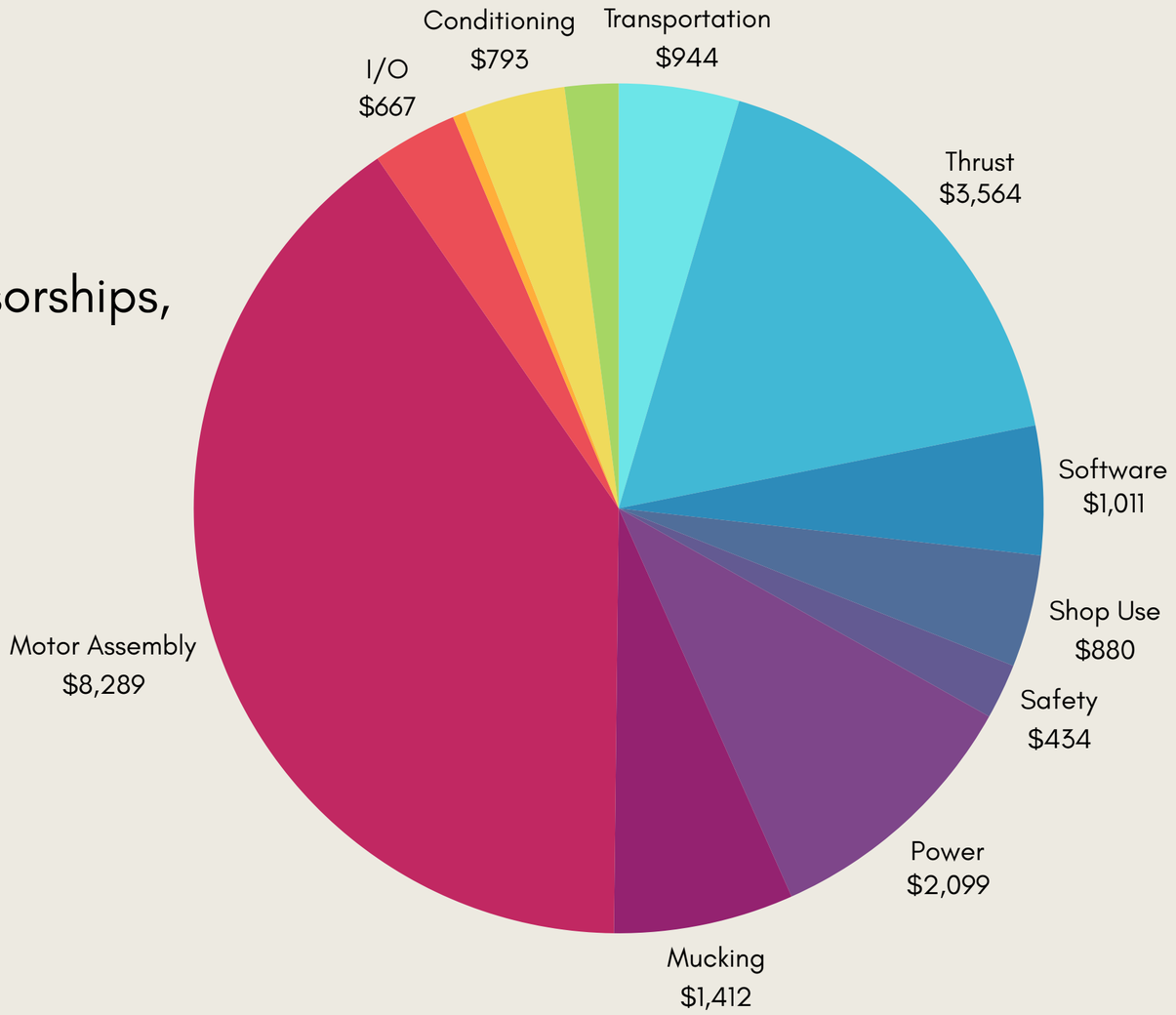
- First Austin & UATX team in a Musk competition.
- Your logo on the TBM.
- Shared with UATX, UT Austin, and beyond.
- It's a signal. You believe **grit > prestige.**

🔗 More details on sponsorship tiers and benefits

Finances

Total: $20,614

Goal: half in-kind sponsorships,
half cash

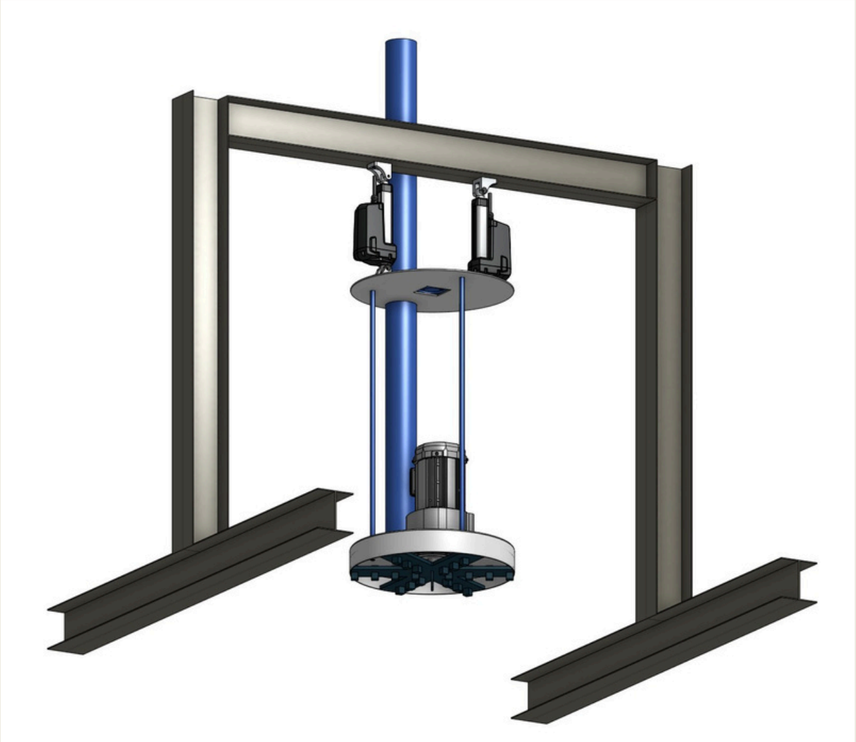


Started with no funding.

- We built a website.
- Contacted 350+ sponsors with a dozen strong leads and 300 drafts on the way.
- Built up presence on X and crowdfunding platforms.
- Made traction but need funding to go further.

Started with no expertise.

- We CADed the entire system, then got 1:1 feedback from TBC.
- Regular contact with TBM experts (AECOM, Gannett Fleming) + past competitors.
- Complying with TBC deliverables, reviews, and safety checks.



Started with no lab.

- Reaching out to UT Austin, UATX, and local owners for test space. **We even found a spot next to a busy freeway 🚧.**
- Using public storage for parts and subassemblies.
- Coordinating tow trucks, vans, and trucks with liftgates.

The Clock Is Ticking. We're Still Digging.

☀️ **Summer:** Fundraise the entire budget

🍂 **Fall:** Finish mucking + conditioning systems.

🦃 **Thanksgiving:** Build cutterhead → motor → thrust → launch frame.

🥂 **New Year's:** Target full-system + transport testing.

Judah Levin

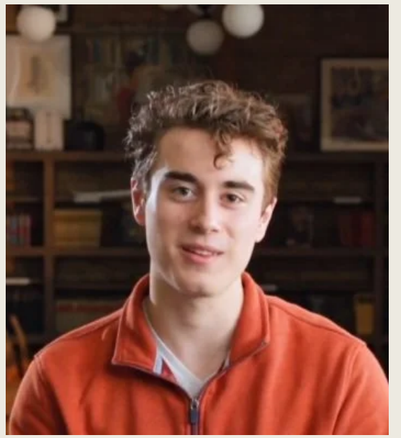
UATX sophomore
Mechanical

Eitan Zarin

UATX sophomore
Electrical

Max Weinstein

UATX sophomore
Software



Samuel Indyk

UATX sophomore
Chemical

Meet the team leads!

You Probably Shouldn't Give Us Funding

It'd be a bad idea, because we're using:

- Hydraulics: Complex, failure-prone system delivering massive force cheaply in a compact system.
- Energy of 80 lbs of TNT: Harnessed through continuous cutting to form a perfectly cylindrical, scalable hole, which is far more efficient than manual labor.
- Experimental ultrasound emitters: Vibrating and fluidizing sticky clay, using a method that's never been done before.
- Parts from this year repurposed for more grand competitions in future years!

Grit > Prestige.

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