TurboTax for Drawings

An AI-powered GD&T screening tool that frees senior engineers from basic error review — so they can do the work they were hired to do.



Product Demo · 2026

The Problem

A measurable, industry-wide bottleneck — backed by published manufacturing research

Customer Discovery

> *"The biggest time-sink in my day isn't designing — it's manually flagging redundant GD&T callouts that create downstream confusion."*

— Tim, Senior ME/MFG Engineer · Customer Discovery Interview



Hours/Day

Tim's daily time lost to basic GD&T error review*

25–40%

of prototype manufacturing costs wasted by over-tolerancing†

3–8%

industry average scrap rate in manufacturing‡

** Customer discovery interview with Tim (2026) † okdor.com CNC research ‡ picomto.com manufacturing data*

How Every Framework Shaped a Real Decision

Customer Discovery

Tim's real bottleneck was basic errors — not complex design. He said 'the time-sink is flagging redundant callouts, not the hard engineering.'

→ Built automated screening layer FIRST. Advanced features come after.

User Persona (Tim)

Tim is a Senior ME/MFG Engineer losing hours daily to junior engineers' basic mistakes. His goal: stop babysitting simple errors, start doing real design.

→ Tool designed as a pre-Tim filter — he only sees what genuinely needs him.

Journey Map

Step 6 (writing feedback for the CAD team) was flagged as 'Unnecessary.' Tim manually writes the same corrections over and over.

→ Auto-generated redline reports became a CORE output, not a bonus feature.

PRD + Value Story

Features → Outcomes → Human Value: Screening = peace of mind. Cost optimization = financial security. Redlines = cognitive load cut in half.

→ Each feature maps to a human need, not just a technical capability.

PRD | Value Story

The Solution

Four layers — each one traces back to a framework or a user insight



Automated Screening

← Journey Map Step 2

Catches basic GD&T errors, over-constraints, and redundant callouts instantly. The spell-check layer Tim shouldn't have to do himself.



Cost Optimization

← Customer Discovery

Flags tolerances that force unnecessary manufacturing processes. Finds specs where you're over-paying — up to 40% of prototype costs.



Redline Report Output

← Journey Map Step 6

Auto-generates fix lists for the CAD team. Eliminates the 'Unnecessary' step from Tim's journey map — the manual write-up.



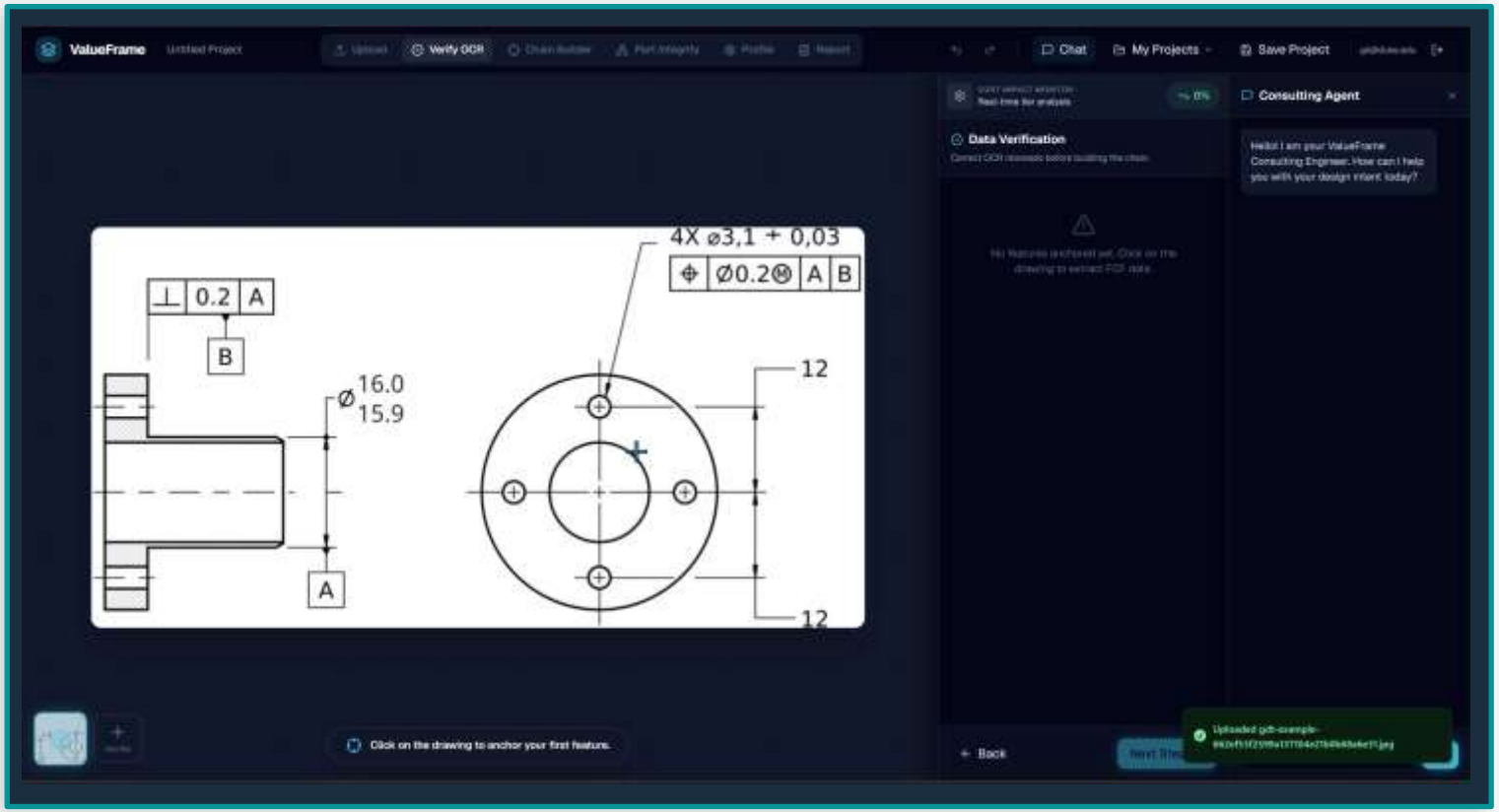
Expert Escalation

← Persona (Tim)

Flags genuinely hard problems for Tim's 20+ years of experience. He only sees what actually needs him.

Every feature was built because a framework told us it needed to exist.

Product Demo



Why This Creates Real Value

Value Story Framework

Feature	Measurable Outcome	Human Value
Automated GD&T Screening	90% of basic errors caught before Tim sees the drawing	**Peace of mind + professional confidence**
Cost Optimization Analysis	25–40% savings on prototype machining costs	**Financial security for the project**
Redundancy Detection	Cleaner drawings, faster time-to-quote, fewer RFIs	**Efficiency — Tim's expertise returned to real design**
Auto-Generated Redlines	Eliminates manual write-up step for repeat errors	**Cognitive load cut in half**

Where We Are — PMF Diagnosis

Scored across Satisfaction, Demand, and Efficiency from today's CFCI sprint workbook

Satisfaction

☑ Strong

Tim validated the silent diagnostic UI and redundant-callout solution. Pain point confirmed by expert user — not just peer praise.

Demand

⚠ Early

No paying customers yet. Beta to engineering firms is the immediate unlock. Free trial → Sean Ellis Test → paid pivot.

Efficiency

☑ Strong

Drawing-import architecture = near-zero licensing overhead, compatible with any CAD stack. Feature requests already coming in.

Sean Ellis Test target: 40% 'very disappointed' — end-of-trial in-tool survey + retention cohort tracking to confirm PMF

Future Work

Concrete next steps this sprint — and open assumptions still to validate

Next Steps (This Sprint)

1. Fix UI bugs — beta deployment is blocked on this
2. Full product release to Tim — validate assumptions, collect edge cases
3. Interview Asensus machinists — which callouts spike costs most?
4. Expand training data from ASME Y14.5 published standards
5. Build Sean Ellis survey into end-of-trial product flow
6. Deploy to Duke Motorsports for non-expert UI feedback

Open Assumptions to Validate

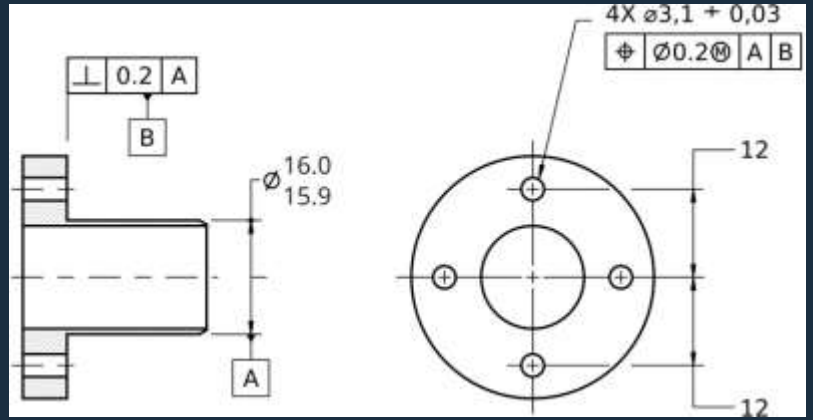
- Will Tim adopt this daily — or keep doing it by hand?
- Can the model match shop-specific tribal knowledge or only ASME?
- Free → paid: what's the right moment and price point?
- Is the market just Tim and me, or enough engineers in pain?
- Open-source vs. proprietary — how to protect IP?

The Gatekeeper's Paradox

Tim's expertise is too valuable to waste on basic error correction.
This tool doesn't replace Tim — it gives him his job back.

Where We Stand

- ☑ Pain point confirmed by expert user (Tim)
- ☑ Real signals — not just peer praise
- ☑ Scalable architecture, low overhead
- ⚠ Beta deployment is the next unlock
- 📋 Sean Ellis Test planned for end of trial



Questions?