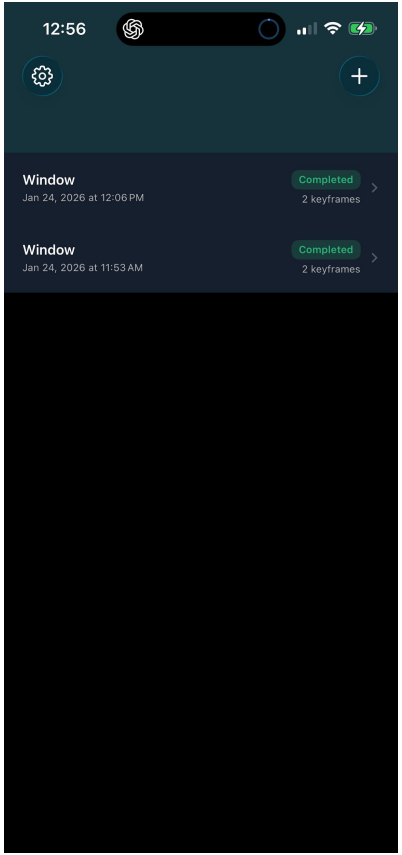
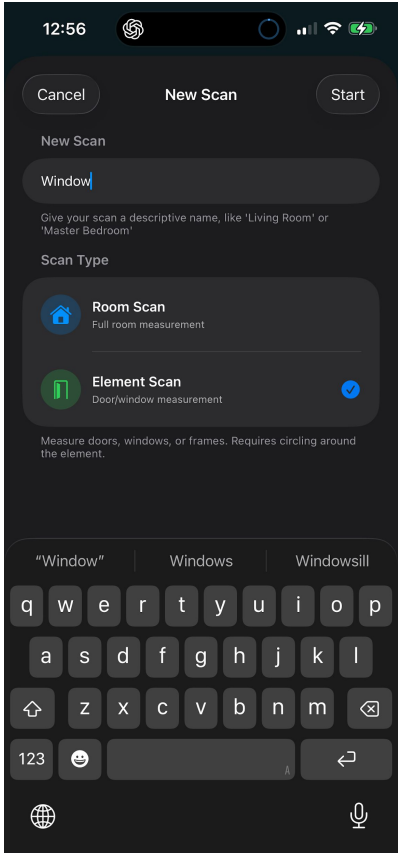
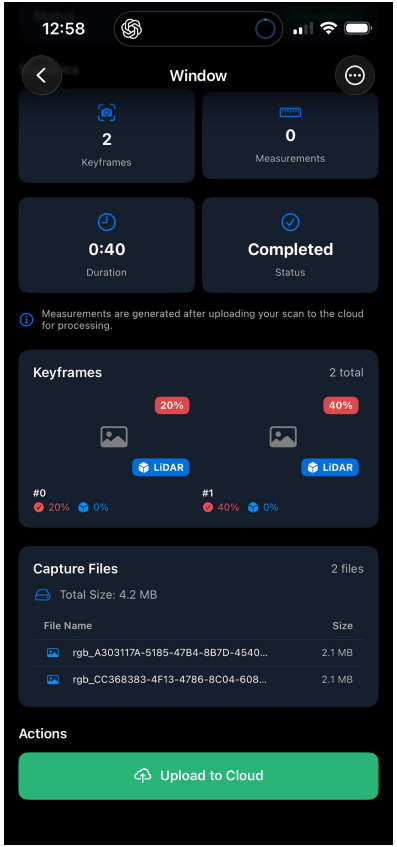
Cline x Cerebas x Z.AI GLM 4.7 and Xcode







Consumer Mobile Metrology for Residentual Use Cases

January 2026

My Background

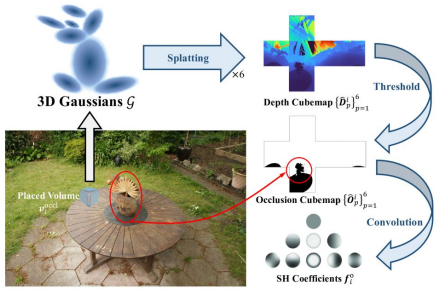
- Solution Architect
- Previous Java Developer
- Currently an AI agent software developer supervisor
- *(almost)* ZERO expertise with iOS Apple programming other than knowing that it is *hard*

What is the Vibe Coding Challenge? (Part 1)

- Sophisticated large language models (LLMs), such as Claude Opus 4.5, struggle to generate applications beyond rudimentary business functionality.
- Metrology, the science of measurement, is a domain requiring a high degree of specialized expertise.
- While LLMs have substantial access to the underlying knowledge, generating a reliable, specification-compliant implementation has not been successful to date.
- This difficulty necessitates either:
  - Human expert intervention to guide both the scientific and programming aspects.
  - Implementing an expert decomposition process to resolve complexities encountered after the initial application scaffolding is complete.

What is the Vibe Coding Challenge? (Part 2)

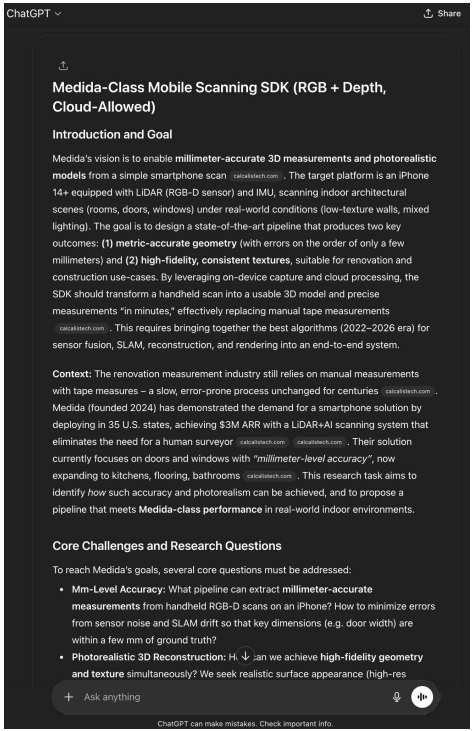
- Mobile Application
  - iPhone 14 Pro target device
  - Xcode on MacOS (Intel)
  - Windsurf with Cline + GLM 4.7 extension
- Cloud Post-Processing (OBE - Overcome By Events)
  - Docker Compose container
  - Create 3D Guassian Splat for visual walkthroughs
  - Create measurements and floorplans for renovations, new appliances, furniture, etc.



Medida provides **1/8” accurate** digitized measurements for window and door installers **100% of the time.** Eliminate mismeasurements, speed up project cycle time, and improve customer satisfaction with our **AI-powered virtual measuring system.**

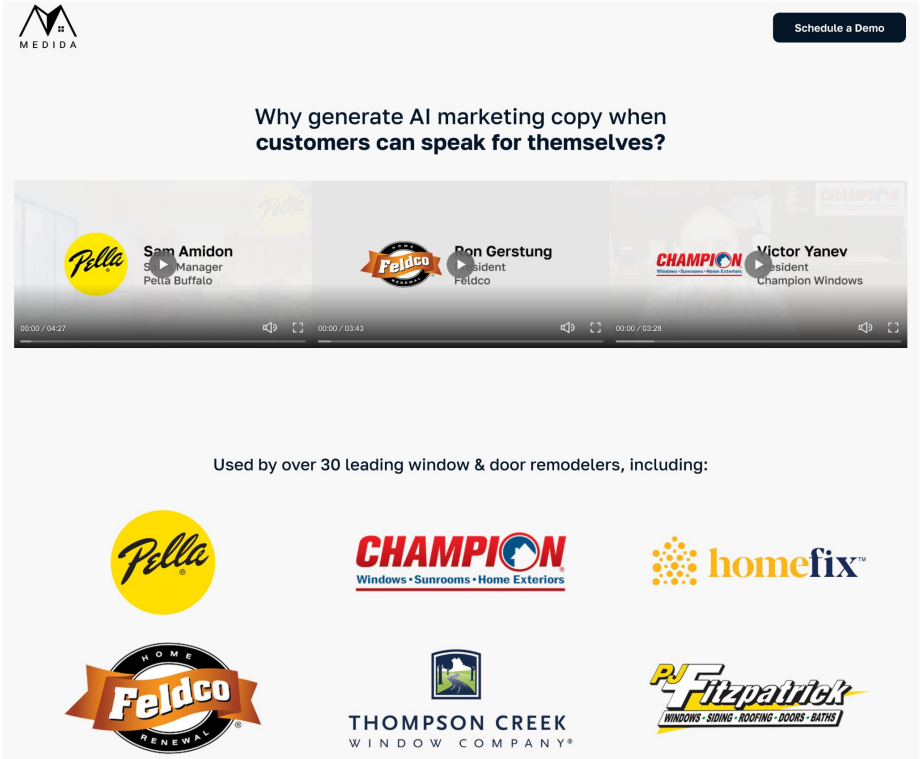
What is the Vibe Coding Challenge? (Part 2)

Can we ask ChatGPT Deep Research (or whichever deep research you prefer) to create a “PhD-level” analysis of how to implement a metrology solution on a mobile device?



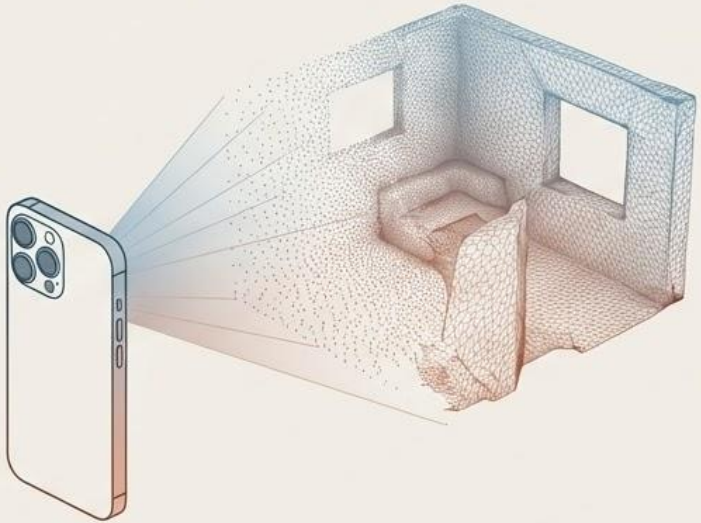
…and have that be *correct* and ready for implementation?

Medida is an Israeli startup focused on the renovation sector, utilizing **AI-powered technology** to provide **millimeter-level accuracy** in measurements using smartphone scans. The company has raised **$4 million** in seed funding and is targeting profitability by early **2026**. Medida's innovative system aims to eliminate common mismeasurements and speed up project cycle times, significantly improving customer satisfaction in the home renovation industry.



Medida-Class Mobile Scanning SDK

Advanced Cloud-Allowed 3D Reconstruction Pipeline

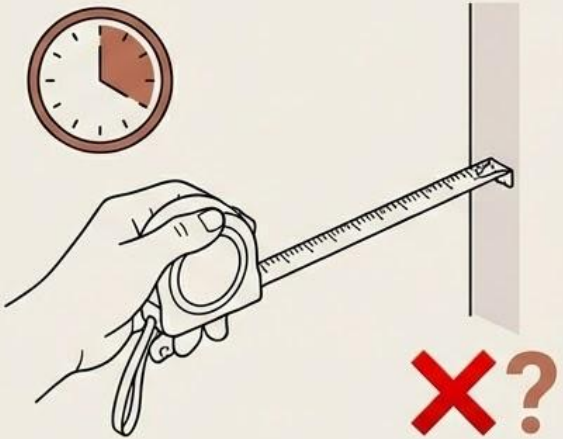


Enables millimeter-accurate measurements and photorealistic models from standard smartphone (iPhone 14+ with LiDAR).

Professional-Grade 3D Scanning in Your Pocket.

Core Value Proposition

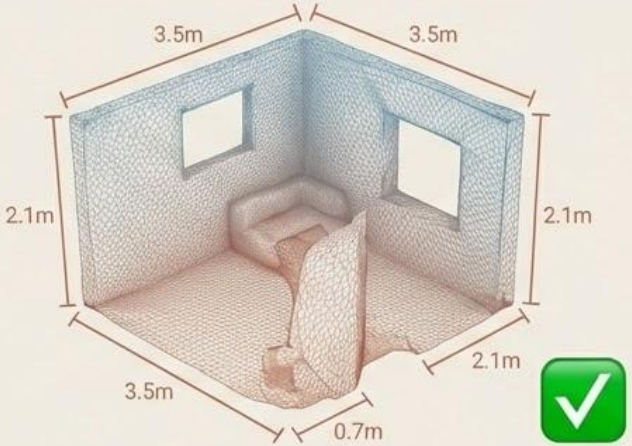
Traditional Method



Slow, error-prone manual tape measures.

Revolutionizing Renovation & Construction

Medida-Class Solution



Fast, professional-grade 3D scanning. Transforms handheld scan into usable 3D model and precise, verified measurements “in minutes.”

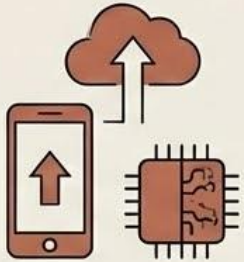
Key Features & Differentiators

Millimeter-Level Accuracy

Cloud-based pipeline with global Bundle Adjustment, Manhattan-world alignment, and uncertainty-aware TSDF volumetric fusion.

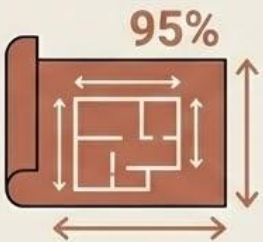
Photorealistic Output

Global color calibration, seam-optimized texture atlas, and optional neural rendering (e.g., 3D Gaussian Splatting).



Smart Cloud Offload

Real-time on-device capture/UX and heavy, high-fidelity computation on the cloud.



Automated Measurement Extraction

Identifies architectural elements and reports metric dimensions with quantified uncertainty.

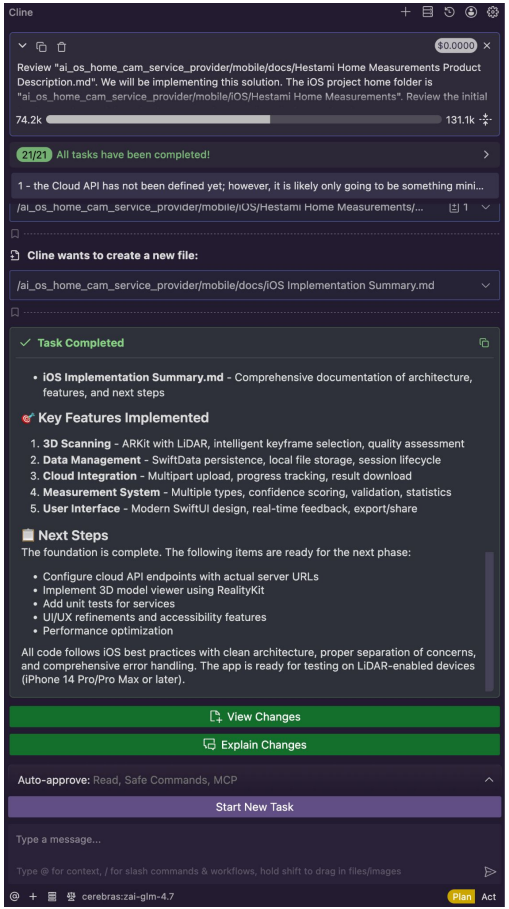
Z.AI GLM 4.7 - Observations and Feedback

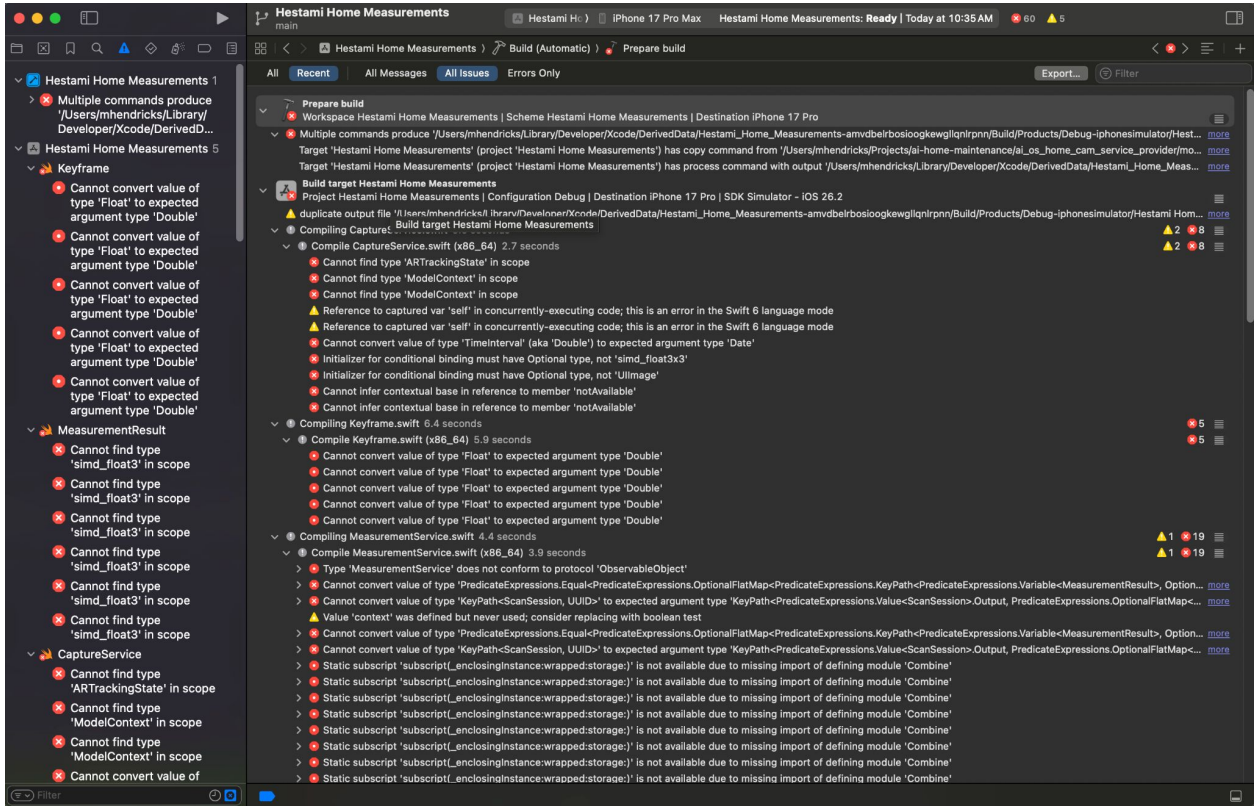
- Windsurf - OK performance (but great performance with Claude Opus 4.5)
- Cline - ***Trustworthy*** performance (TBD performance with Clause Opus 4.5)

It's not clear what particular platforms are doing (or not doing) that make underlying LLMs perform better or worse. E.g., Google Gemini 3 is not too bad, even helpful in VS Code plugin; however in Antigravity, its use would not be recommended IMHO.

Pleasantly surprised by how well GLM 4.7 built out the iOS app + Cerebras was fast ("connectivity throttling" notwithstanding)

Cline x Cerebas x Z.AI GLM 4.7 and Xcode





Cline x Cerebas x Z.AI GLM 4.7 and Xcode