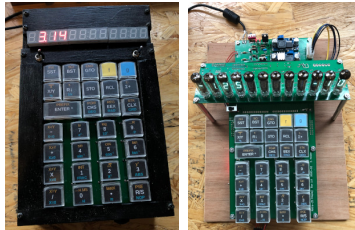# The Retro-25 DIY Calculators

E. Hazen
representing himself

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A bit of personal (HP-Related) history...

At age 13 (in 1973) I lived briefly in Leeds, England and worked at the Uni as an unpaid physics graduate student. I encountered an HP-9100 and taught myself to program it. I was immediately hooked!

In 1975 my father bought an HP-25. I devoted myself to delivering the *Ann Arbor News* faithfully to about 60 subscribers, and eventually I could afford my own HP-25 at $195.00 (about £663 today)

Unfortunately both HP-25 are now dead; mine fell in the fish tank with the piranhas while I was away and my roomies were scared to retrieve it! My father's died when the batteries lost contact.

Since then I have become somewhat of a collector, acquiring a 10C, 11C, 15C, 16C and 67. The 10C and 15C were filched, the 11C and 16C I use almost daily.

Educational and Professional History...

In High School I made the acquaintance of an HP-2100 series computer running HP timeshare BASIC. We played various games (some legit, like TREK73) and others (posting the administrator password on the chalkboard) not so legit.

I studied computer science for a while at Michigan and became expert with the model 29 (I hated that thing!) I did learn a few other things (ALGOL and S/370 assembly)

What really changed my life was working at Radio Shack. They introduced the TRS-80 and I immediately bought one (well, honestly, I put it on "lay-a-way" at my house!) I taught myself Z80 assembly language and wrote a simple multi-tasking kernel and FORTH system.

I parlayed my Z80 skills into a job a ETC (theatre lighting) and designed their Idea and Vision lighting consoles, and wrote much of the low-level software in Z80 assembly (using my trusty TRS-80, now decked out with dual 8 inch floppies) as a dev system.

Why? Why? Why?

Why a DIY HP-25?

- ▶ The HP-25 is my favorite calculator
- ▶ The display and keyboard are too small for middle-aged eyes
- ▶ I hate mouse- and touchscreen-based emulators (no tactile feel)
- ▶ I have a bunch of time on my hands (*NOT!*)

Why use a Z80?

- ▶ I know them inside-out
- ▶ They were released about when the HP-25 came out
- ▶ I like designing and assemblying good old thru-hole DIP boards

Why the HECK VFD displays?

- ▶ Because they are *cool!*