



## Outtakes #2: Crash Course Computer Science

Crash Course: Computer Science

<https://youtube.com/watch?v=hry3g8i1d0E>

<https://nerdfighteria.info/v/hry3g8i1d0E>

Episode 17 ... take 2? I still can't get this.

Hi, I'm Carianne and welcome to Crash Course Computer Science. As we've discussed throughout the series, computers have come a long way from mechanical devices capabl...mmm

With CP requests um huh

The RAM can transmit just - aaah!

Things-ing - hmm [crying]

You need like uh - something to punch [laughing] yeah, yeah. woah!

Fetch decode execute, fetch decode execute, fetch decode execute, fetch decode execute. Fetch decode execute!

Fetch decode execute fetch decode execute fetch decode execute, and so on. This meant our design required three required three clock cycles to execute one instruction. And I messed up the last line! [laughing] Why?

No word on whether it can run crisis at max settings but I sus-ect, suspe - hmm.

Whenever possible, execute instructions that require different parts of the cpu,

Over the next 60 years, these business machines grew in capabilityyyy

- got this - come on, for the win.

Over the next 60 years, these business - naah!

Over the next 60 years, these business -mm! [laughing and crying] no...my brain!

Let's go to the Thought Bubble. [In background: Yeah, that was really good! Ok, so uh.] Relax! [In background: yup!] [laughing] Chillax time!

Unested between if and and - if. [laughing] That's not the line! [laughing]

Because computers work with tech so often, there are many functions of - I don't got this. [laughing] I really don't got this.

The (?~1:44) program in - [laughing]

The American mathematician Alonzo Church first presented a solution to this problem in 1939. He - nope. That's the wrong date. [laughing]

The result was a high level, easy to use - [laughing] I'm running faster than words are coming out, [laughing] and I'm like, slowly dying.

(?~2:07) built his first IC's out of geranium, a rare unstable material - germanium? It's a geranium - which is a flower.

Just like a film could be projected for an entire movie screen, we can focus a photo mask onto a very small patch of silicon. [In background: that's not just like, it's like the opposite] [laughing] [In background: Exactly not like that] [laughing]

[In background: yeah] [laughing] I feel like I'm a stop sign.

Interfacing with early peripherals was very low level, requiring

programmers to know intimate - sounds a bit weird [laughing]

I feel like I'm playing bagpipes. [laughing] [imitates bagpipes] [laughing]

(?~2:47) and his friend - nope. [laughing] They probably weren't mates.

[laughing] just see - [laughing]

These would wait for the right spots to rotate underneath them to read or write a bit of data to keep. this. [laughing] delay. as. short. as. possi. ble.

To keep track of what a file is, and what's a directory - [laughing] Just give up here.

Non-volatile solid-state drives, or SSO. No one calls them SSD's! [laughing] [In background: I call them SSD's!] Really? [In background: yeah!] [laughing]

Or SSD's as the cool kids say - Or just Brandon. [laughing]

Luckily, Newer versions of Windows have better protections, and usually don't crash quite that often - [laughing]

[singing:] and that's a wrap on that video! [laughing]