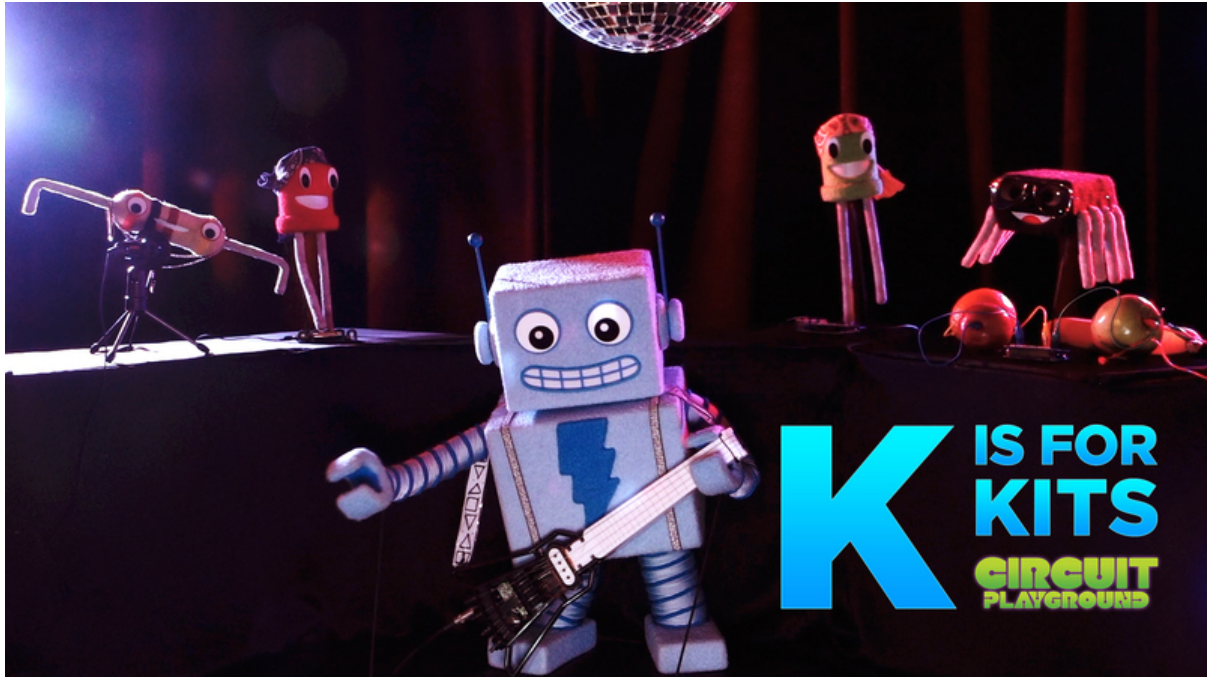




# Circuit Playground: K is for Kits

Created by Collin Cunningham



<https://learn.adafruit.com/circuit-playground-k-is-for-kits>

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# Video

Adabot & the Circuit Playground components love to jam, but they could use some new instruments. Luckily, Ladyada has few kits up her sleeve!

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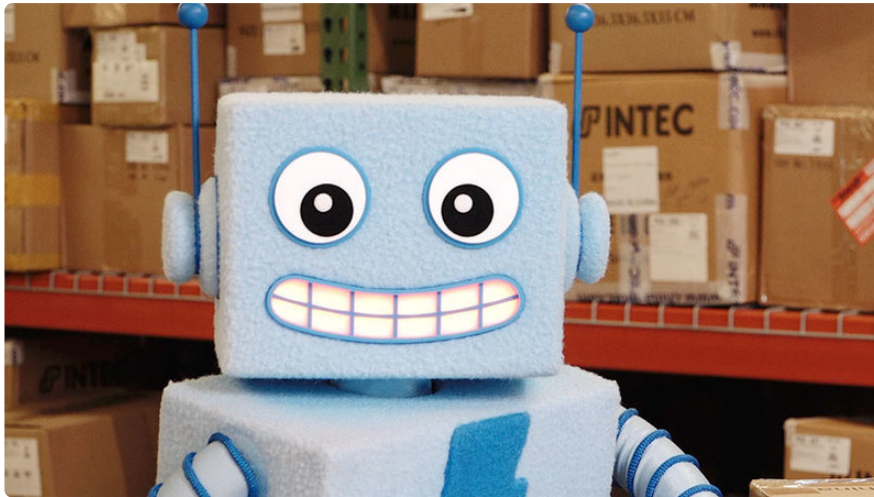
## Transcript



Ladyada: Hello? Adabot - is that you?



Ladyada: What's going on over here?



Adabot: Oh - we're just having band practice.



Ladyada: Wow - that was intense!

Adabot: Thanks - I love my new keyboard!

Ladyada: Huh ... and Ruby, what are you playing? Is that a box of rocks?





Ruby: rhythm section!



Ladyada: Gus - is that you inside that clarinet?

Gus: I'm gonna be like Benny Goodman!



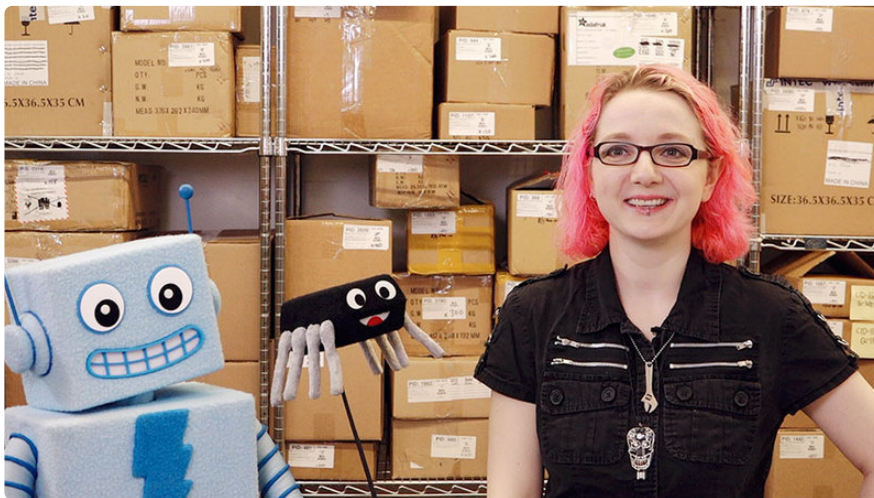
Ladyada: Hans - what are you playing?

Hans: Why I sing tenor, of course!



Ladyada: Wow, ok - Mho what are you playing?

Mho: I play defensive tackle.



Ladyada: Very impressive everyone! But I think if you want to take your band to the next level, you might wanna upgrade your instruments with a couple of kits.

Adabot: Kits? What's a kit?

Hans: Ooh - what's that?



Ladyada: An electronics kit is a bunch of different parts you can put together to make your very own electronics. Like this little synthesizer kit. Once we put this together, Gus won't have to crawl inside an old clarinet to make some music.

Gus: Awesome!

Ladyada: another reason building kits is so great, is that in addition to building something cool, you've also picked up a new skill.



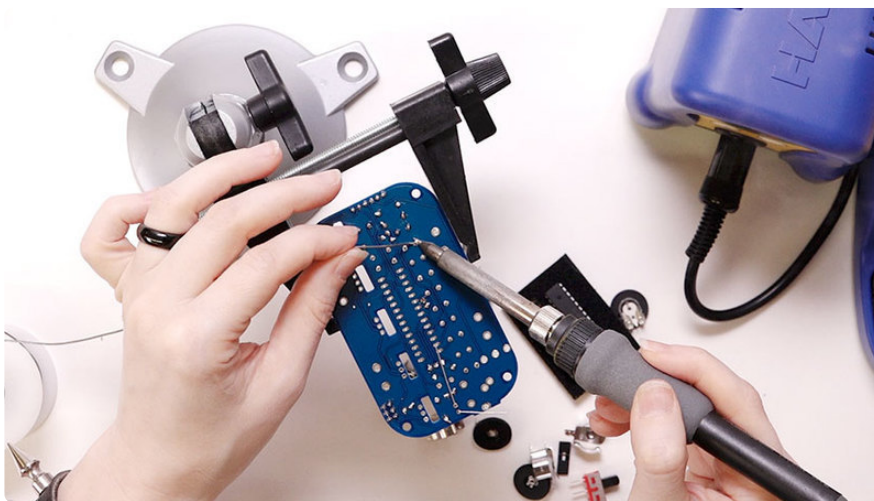
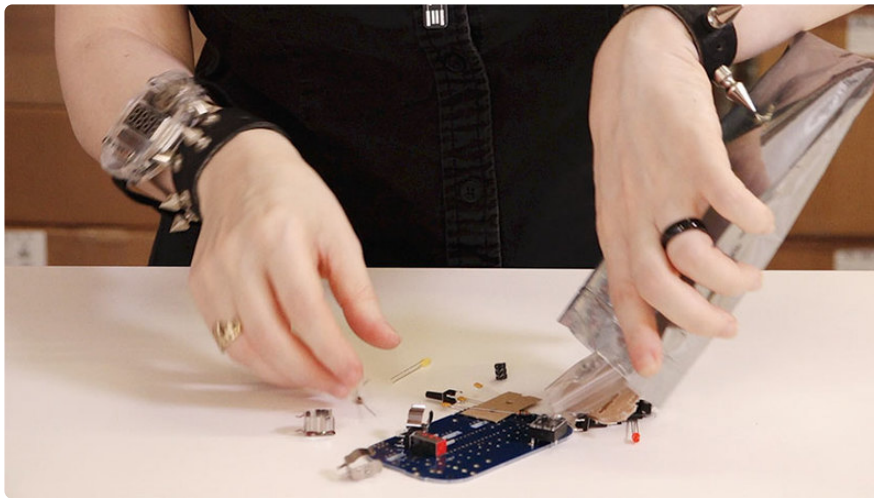
Mho: You've gotta have the skills to pay the bills.

Hans: Yah!

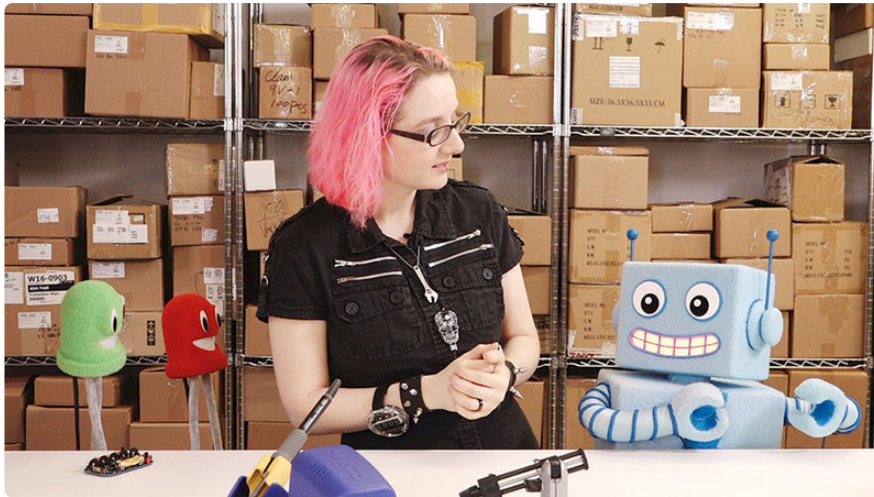




Ladyada: Skills are good for paying bills, but they're also good for other things, like solving problems or building cool stuff - like this necklace or this watch. So let's get started ...







Ladyada: Ok - this synth kit is done and it's ready to play.

Gus: Cool!

Ruby: Thanks!

Ladyada: And for you Adabot - how about a guitar?

Adabot: Excellent!





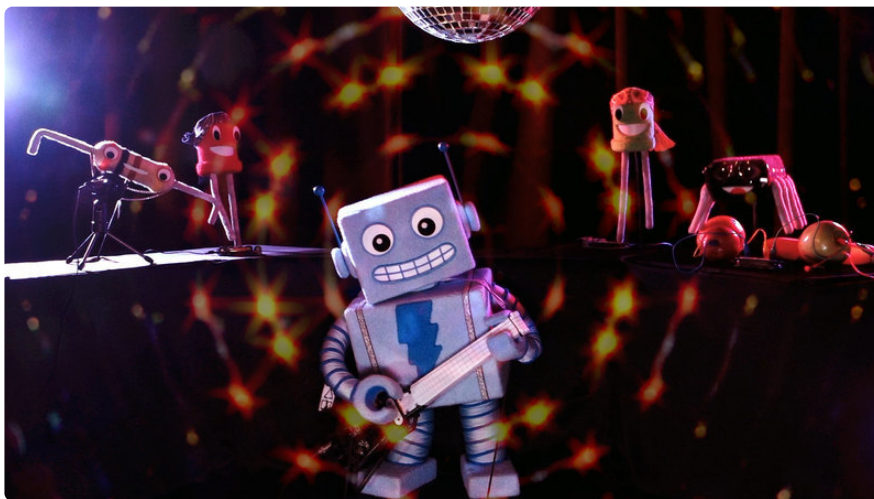
Ladyada: Ok Adabot - you're new electric guitar is all finished.

Adabot: Wow - thanks!

Ladyada: Ok everyone - so how do you like you're new instruments?

Adabot: Let's find out!

Ladyada: Alright - hit it!



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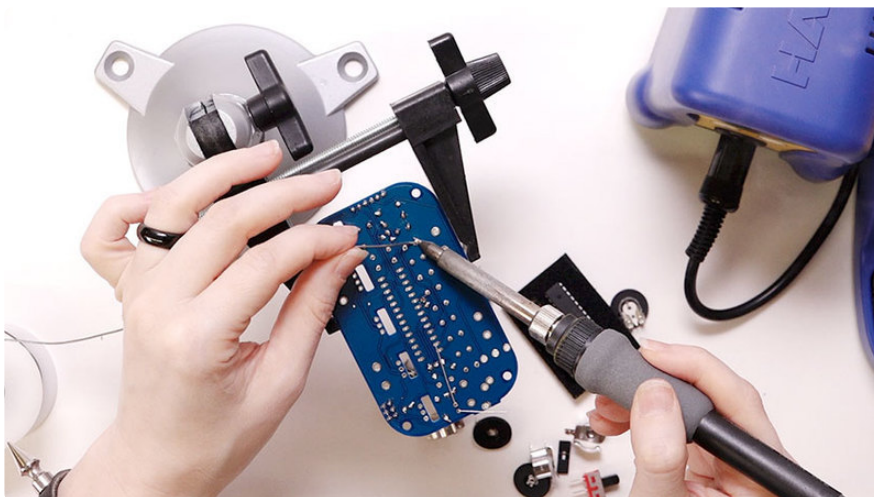
## Learn More

[Electronic kits \(https://adafru.it/tBr\)](https://adafru.it/tBr) have been around since the 1940's, giving people the ability to build devices which would normally require a lot of specific knowledge to make otherwise. Back in the day, the most famous kit company was [Heathkit \(https://adafru.it/tBs\)](https://adafru.it/tBs). Heathkit's first kit was the OL-1, an oscilloscope people could build themselves ...



But Heathkit wasn't the only kit company from yesteryear - check out some of the others and learn more about the history of kits over at [Nostalgic kits \(https://adafru.it/tBt\)](https://adafru.it/tBt).

## What can you learn by building a kit?

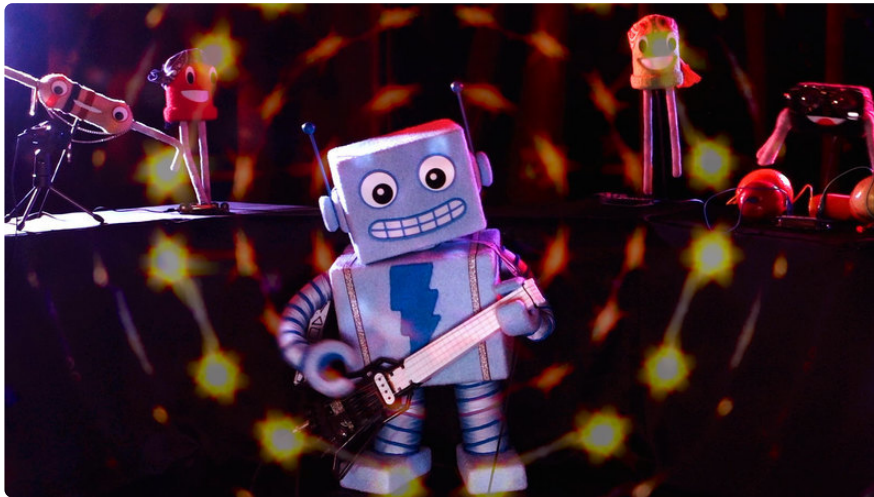




Building a kit is fun and a great way to learn about electronics. Here are just a few of the skills you sharpen when building an electronics kit:

- **soldering** - solder is the electronics 'glue' that brings it all together!
- **identifying components** like resistors, capacitors, transistors, & more
- **electricity basics** - wiring power connections is a great way to learn basic electronic theory
- **modding** - making changes to a circuit is a great way to learn while doing!
- **PCB design** - mounting components on a printed circuit board familiarizes you with printed circuit boards

## What kits were used in this video?



Check out the kits Adabot & the Circuit Playground components used in this video.

Ruby: [Minty Synth \(http://adafru.it/2648\)](http://adafru.it/2648)

Adabot: [Gakken Guitar \(http://adafru.it/1832\)](http://adafru.it/1832)

Hans: [Capacitive Touch Shield for Arduino \(http://adafru.it/2024\)](http://adafru.it/2024)

Gus: [Piano Hat for Raspberry Pi \(http://adafru.it/2695\)](http://adafru.it/2695)

Plus - Ladyada wore a [Blinky Skull Pendant \(http://adafru.it/2306\)](http://adafru.it/2306) & [Solder: Time Watch \(http://adafru.it/495\)](http://adafru.it/495)!