Tech Take-Apart

Mountain View Public Library

Tweens (10-12)

Tech Take-Apart

Dec 17, 2025

$1-50

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Byline

Renee Kitson, librarian, Mountain View (Calif.) Public Library

If you walked past the Mountain View Public Library’s program room during our Tech Take-Apart program, you might hear things like: “WHOA. Is this what the inside of a keyboard looks like?” or “I found… I think… a… tiny metal waffle? Is it supposed to be a waffle?”

Welcome to Tech Take-Apart, the program where kids get to open up old electronics, explore the mysterious world inside them, and proudly hold up circuit boards like they’ve just discovered ancient treasure. Which, honestly, is only a slight exaggeration.

This program started with a simple idea: children are endlessly curious about how things work, and most of us spend our lives pressing buttons without ever seeing what’s behind them. What surprised me was just how joyfully serious the atmosphere becomes once the work begins. The room goes quiet in that electric

(pun definitely intended) way that happens when 50 small humans and their grown-ups are concentrating harder than they did on their last math test.

Advanced Planning

The goals of this program were to give children a hands-on way to explore what's inside everyday technology, spark their curiosity and create a space where children and caregivers could genuinely discover things together. I planned the program a month in advance, gathering safe e-waste, cutting off all cords so no one was tempted to plug anything in, and setting out simple tools like small screwdrivers so families could take things apart at their own pace. Our Children's Services team helped collect old electronics and prep materials. Steps included reviewing safety guidelines, sorting devices, setting up tool stations, and creating clear, friendly instructions.

One unexpected challenge was how quickly some kids dismantled their first item, sometimes in minutes, and were immediately ready for their next "mystery machine." In a few cases, they hadn't even fully explored all the layers still hidden inside the device before moving on. I adjusted by gently encouraging families to slow down, look closely, and see what else they could discover before rushing to the next piece of tech.

Marketing

I promoted the program through our library's online calendar, in-house signage in the Children's Room, and by mentioning it to families who enjoy hands-on or STEM-focused activities. Our Communications Librarian also helped by sharing it on social media. Promotion began about a month before the event, and it was very successful. We had a steady stream of children and caregivers throughout the program, with the room buzzing from start to finish.

Budgeting

There was very little cost associated with this program. I was able to source all of the e-waste for free through donations from staff and community members, which kept expenses low. The only items I needed to purchase were small screwdrivers and basic tools for taking apart the devices. For libraries looking to reduce costs, I recommend relying on donated electronics, asking staff to save old equipment headed for recycling, and purchasing a small shared tools that can be reused for future STEM programs.

Day-of-event Activity

Setup for the program was simple. We arranged tables around the room and set out the e-waste items, tools, and trays for collecting parts. Two staff members were present during the event: one to help families get started and monitor safety, and another to move around the room offering support. One concern beforehand was not having deep technical knowledge about every component inside a computer, but this ended up working in our favor. Many caregivers in attendance work in the tech field, and they naturally began explaining parts to their own children and to others nearby, creating a collaborative, community-powered learning experience.

Program Execution

The program was lively and engaging from the moment families walked in. Children immediately gravitated toward the e-waste tables, and caregivers jumped right in with them, creating a collaborative, hands-on atmosphere. Over 70 people attended, and the room stayed comfortably busy the entire time.

Feedback from families was very positive, many parents shared that they loved having a chance to explore technology with their children in such an open-ended, low-pressure way. Several kids proudly showed off the parts they discovered and asked when we would be doing something like this again.

We achieved our goals of sparking curiosity, encouraging hands-on STEM exploration, and creating opportunities for kids and caregivers to learn together. The program felt joyful, focused, and full of discovery.

Advice

My biggest advice is to keep the program simple and trust that the curiosity will do the heavy lifting. Gather safe e-waste, offer basic tools, and let families explore at their own pace. You don’t need to be an expert on what’s inside every device, caregivers often step in to share what they know, and the collaborative learning that happens is part of the magic. Make sure cords and batteries are removed ahead of time, have a variety of items available, and be ready to encourage kids to slow down and look closely at what they’ve discovered. Most of all, embrace the unexpected, kids will surprise you with what they find fascinating.

Since Programming Librarian published this article, our readers have tried the program at their own libraries! Here’s what they have to say:

Feedback
What a fun and easy program. It was an hour long and the kids were absolutely engrossed the whole time. I had great attendance and next time will have even more items. Lots of excitement from kids and compliments from parents! Thanks for the great idea. Will definitely do it again.
— Rachel Vellenga, Children's Librarian, The Urbana Free Library, Illinois
Feedback
This program went amazingly well! I gathered used, non-working electronics for months and set them out for the kids to disassemble. I was worried I wouldn't have enough, but I think I had just the right amount. I was pleasantly surprised that families brought their own tools to help crack into the electronics. I'm glad they did, because I don't think I had enough screwdrivers to get into everything. I think having two adults and multiple teen volunteers was a must to help out kids with the tougher things to get into.
— Erin Nicholson, Youth Services Associate, Culpeper County Library

Did you try this program at your library? Share your experience using this form.

Supporting Materials

Download this Program as a PDF

- Programming Librarian Facebook Group

Slideshow Images







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Fix It Workshop

Audiences:

Teens (13-16)

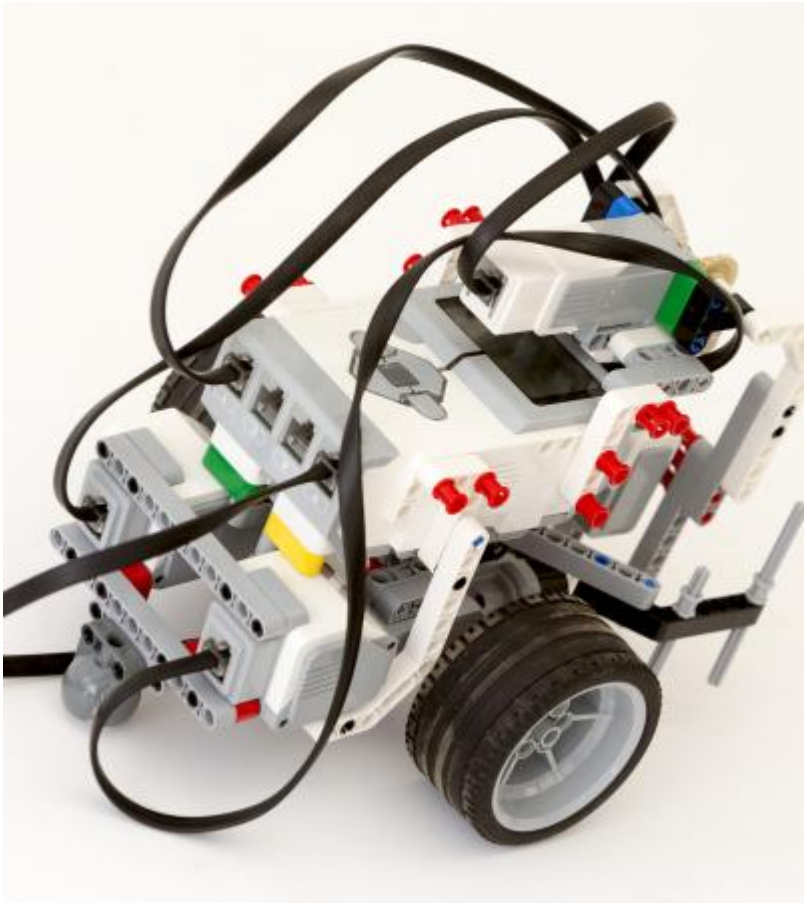
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