

PIPER

CASE STUDY

Bringing Physical Computing
to Life in the Classroom



Educator: Jesus Huerta

Role at Time of Implementation: 5th Grade
Teacher & Technology Coach

School/District: Calexico Unified School
District – Educational Technology
Department - Calexico, CA

Products Used: Piper Computer Kit, Piper
Make Base Station and accessories

Implementation Period: 3 years in classroom
rotation, ongoing as an edtech coach

The Challenge

When Jesus first discovered Piper Computers, he was looking for a tool that would deepen his classroom's STEAM culture.

While his students had access to 3D printers and robots, he wanted something tactile that combined hardware assembly, coding, and storytelling. Many of his students had never assembled anything before, and he saw the potential to introduce them to physical computing in a way that was approachable and exciting.

Overview

Jesus Huerta, a passionate advocate for STEAM education, was searching for reliable, engaging technology to expand hands-on learning opportunities in his 5th-grade classroom. Already equipped with 3D printers and robotics tools, Jesus wanted to add a resource that could introduce physical coding while sparking creativity, curiosity, and collaboration.

“My guiding principle when it comes to lesson design is, ‘*Will kids think this is cool?*’ Piper absolutely checked that box.”

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The Solution

Jesus connected with Piper through his work with CUE (Computer Using Educators) and educational conferences. Once he had the kit in hand, he knew it would be an instant hit.

Key features that stood out:

- **Detailed blueprints & instructions** – Easy for students to follow and understand
- **Hands-on assembly** – Building from scratch gave students ownership of their learning
- **Minecraft-themed interface** – Instantly familiar and engaging for students
- **Teacher-friendly design** – Freed Jesus to circulate and observe instead of micromanaging each step

“Many of my students had never assembled anything. Piper gave them that experience, then smoothly transitioned them into powering on their computer, exploring in Minecraft, and coding.”

The Experience

Initially, Jesus introduced Piper in small groups of 4–5 students per kit over a few days. After initial assembly and the first coding challenges, Piper became part of his choice stations alongside drawing, reading, digital music design, and 3D modeling. Students could choose Piper whenever they wanted during station time.

Peer & Teacher Feedback

- A fellow teacher who attended Jesus's Piper training later used the kits in summer school and reported great success, even without prior coding experience.
- The collaborative nature of the kits helped students work through language barriers by translating for each other and sharing problem-solving strategies.

Unexpected Benefits

- Students who didn't connect with other coding tools became engaged through the Minecraft-themed environment.
- The experience eased the transition to using Minecraft themes for other lessons.

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The Impact

Behavioral Changes:

Students who struggled with behavior found a sense of accomplishment and purpose with Piper. Many displayed increased focus and cooperation.

Engagement Levels:

Piper consistently fascinated students, inspiring them to use high-level technical language naturally in conversation.

Teacher & Student Satisfaction:

The only “complaint” from students was that they couldn’t take the kits home or use them more often.

Learning & Teaching Improvements:

Piper reinforced Jesus’s belief that his students could tackle more complex technology. This confidence led to bold experiments—like sending 3D printer kits home during remote learning in 2020, which became a major success.

What’s Next?

“

I want to see the youngest grade level that’s willing to try Piper and then figure out the best way to support them.

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Want to learn how Play Piper can support your students? Email us at sales@playpiper.com.

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