

## **OpenSauce 2025 Reflection – Marcos Posada (CSEE '27)**

My name is Marcos Posada, and this is the story of how a last-minute trip to a science and engineering convention completely changed my life—in the best way possible.

OpenSauce is a science and engineering convention where engineers, hobbyists, and artists gather under the umbrella term “makers” to showcase wild projects. Think Maker Faire, but curated by YouTubers. The guy behind it all? William Osman. I found out about the event a week before it happened in 2024 through one of his videos. My family and I went at the last minute to spectate. I didn't know it then, but that trip lit a fire under me that would burn for the next year straight.

I saw projects from regular people—people like me—doing insane stuff. I walked out of that venue knowing I'd be back, but next time not as a spectator. I'd return with something that would make people stop in their tracks.

So I got to work. I looked around my desk for inspiration, and my eyes locked onto a little Hexbug Spider toy. That was it. I'd take that tiny toy and scale it up into a full-on walkable, life-sized, six-legged robot.

This was the summer between my freshman and sophomore year, my schedule was packed with a summer Precalculus course to prepare me to get into AP Calculus AB. Even with my schedule packed, I pushed forward and squeezed in time to work on my project.

That year I started CADing what would become a version of the Hexapod Giant that finally resembled what was presented at Opensauce 2025. I planned to use aluminum extrusion and designed it all in metric—which was dumb in hindsight and would cost me. The process of CADing was slow and with classes and other responsibilities, progress was bleak. Come May 2025, with a half-baked CAD and zero hardware, I applied to OpenSauce. And somehow, I got accepted.

Suddenly I had a deadline—July 18th.

With school out, I went full throttle. I scrapped the old design, scaled it down from 1000% to 750%, and finished the new CAD design by June 16th. That was hands down the smartest move I made all year. Then came the hard part—manufacturing.

My first day in the shop was June 17th. I had 30 days, a hot machine shop, and a long list of parts to machine, cut, and assemble. From then on, it was war.

The vertical bandsaw became my best friend and worst enemy. Watching it slice through aluminum was both hypnotic and gut-wrenching. The dull blade screeched like metal sirens. I spent days on end in the shop, alone with the drill press and a dream.

Some amazing teachers stopped by to check on me—Ms. Gambill, Mr. Chua, Mr. Hogan, Ms. Kelly—and their support kept me alive. Special shoutout to Mr. Waters. Not even my teacher, but when I asked him to help me cut giant plywood sheets into 2x3' planks on the CNC, he didn't hesitate. He's one of those teachers who's just there for the students. Every school needs a Mr. Waters.

I also want to thank Mr. Garza, Mr. Gutierrez, and Mr. Piña for backing the project and making sure I had the tools and space to bring the Hexapod Giant to life.

In the first few weeks of construction, my little brother Matthew—soon to be a Bosco Tech freshman—helped bolt on legs and build the arms. In the final weeks, my dad came to help lift massive plywood sections and manufacture the final parts. My friend Seraj Arteaga saved the day by printing the last missing parts on his home 3D printer in order to finish assembly in time.

Thursday night, July 17th, we left Bosco and my pops and I drove seven hours straight to San Mateo. Slept from 5 a.m. to 8 a.m., then unloaded the Hexapod at the event center. That alone took a whole day. We were beyond exhausted and pushing ourselves to our limits, even before it was fully set up, people were already complimenting it.

Then came Saturday. I finally got to show the world what I had built. People were blown away—including William Osman himself. "He looked at the Hexapod, said it was 'sick,'

and told me he wasn't building anything like this in high school. I'll be honest—that moment alone was worth it.

That same day I got my legs moving. The Hexapod Giant actually walked. That was the moment I realized I actually did it.

My dad, my brother, and one of my best friends Muhammad Nabeel were there through it all. Muhammad came to OpenSauce just to support me. Never once doubted me, even when I did. That's real friendship and I am truly grateful for him.

OpenSauce 2025 was the final chapter of a year-long grind—through burnout, delays, and late-night failures. There were so many moments I wanted to give up. But I didn't. Because I knew I was meant to finish this.

And I didn't do it alone.

Jesus Christ carried me through every breakdown, every late night, every setback. I am nothing without Him. My skills, my opportunities, my endurance—they're all gifts. And I used those tools not to build a robot, but to glorify Him.

To everyone who helped me, believed in me, picked up a wrench, printed a part, or even just said "keep going"—thank you. I couldn't have done it without you. And this is only the beginning. I'm excited for what comes next.

As for the future? I want to keep pushing my limits and building things that defy expectations. Maybe I'll make a new and improved version of the Hexapod Giant, applying everything I've learned—if I can get the funding. Or maybe I'll take on something completely different, like a fully autonomous drone that can interact with its environment through robotic manipulation and audio messaging. The world is wide open—and I'm ready to build.