



Top winners or not, Corona's robotics team managed to draw an enthusiastic crowd of enthusiasts.

From robot wranglers to future leaders

How 'no pressure' competition teaches grit and growth

By Barbi Walker-Walsh

Corona del Sol's AZTECH robotics team didn't get the victory they hoped for this year. Still, they became champions in their own right while competing in the Aerospace Valley Regional FIRST Robotic Competition.

Dubbed the varsity Sport for the Mind, the competition combines the excitement of sport with the rigors of science and technology.

According to the organization, the competition is as close as students can get to real-world engineering.



Barbi

So, no pressure. Time-management issues, design snafus and a malfunctioning robot during the first of three matches threatened to derail the Tempe team's progress in the competition.

More than 3,500 teams competed, with 600 of those advancing to the championships in Houston.

But this year, the team learned it's about more than winning trophies—it's about building champions.

Even in their impressive second-place finish, they learned to face adversity, have resilience, pivot and foster a growth mindset.

That's the true power of robotics.

It's all in the attitude

"The biggest challenge was time management," said Ben Lewandowski, the team president. From prototyping to design, CAD, building, programming and testing, time management fails followed them

in every direction, he said. Transitions between development stages snowballed into delays. Unforeseen design issues required last-minute tweaks, eating into precious build time and preparing for the competition in Lancaster, CA.

The contest coincided with the ACT and SATs, compounding the team's workload for the handful of juniors on the team, including Lewandowski. The pressure was intense, and the team ended up using the competition as a test phase for its robot.

It's not an ideal strategy, Lewandowski said. However, the team tackled obstacles head-on, learning valuable lessons in adaptability and problem-solving.

Lewandowski said that building the robot and preparing for the competition took over their lives, but he also took oversight responsibility as club president. He said everyone had a positive attitude, even through the most challenging parts. Lewandowski's mom, Christina, said that the season was not only a roller coaster of emotions but also stressful worrying about Ben's workload.

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She said he spent many hours in the robotics room, working on the project in the evenings, on weekends, on school holidays, and during his lunch breaks. “As the president, I knew he did not want to let the team down,” she said.

One goal he was determined to accomplish was maintaining a positive mindset, both for himself and as a leader. The new president’s attitude is effervescent, and he was resolved to help the team have fun even in the hardest of times, something he accomplished.

"The team spirit was definitely higher and more enjoyable than in previous seasons," he said. Although this is only his third year with the robotics team, he said even in the slogs of the work, this year had a better vibe and camaraderie.

The power of perseverance

Engineering teacher and FIRST robotic mentor Melissa Wendell explained team setbacks.

"We had a rough start to this regional competition as we ran into some issues with the robot control system, leading to our robot being carted off in the first match of qualifications," Wendell said.

The team worked through the night to diagnose and fix the robot, and this grit paid off. As the competition progressed, the robot's performance steadily improved, earning the team the respect of their fellow competitors.

Wendell said the team managed to get the robot to work flawlessly. Even though they didn't make it into the final competition round, the team was sought out to help the leading team when three of its robots went down.

Learning from failure

The top seed chose AZTECH as a backup alliance, a testament to their commitment and determination.

"We answered the call, helping the alliance take second overall," Wendell said. “Our team started unpacking the pit, plugging in the batteries, and getting ready to go in.”

This experience highlights a crucial aspect of robotics: learning from failure.

The most valuable takeaways were not wins or losses but the character-building experiences that unfolded along the way. The team learned the importance of grit—the ability to persevere through challenges. They confronted their fear of failure head-on, understanding that calculated risks are essential for learning and growth.

"It's important to do your best," Lewandowski said. "But it's a learning experience at the end of the day."

Robotics fosters a growth mindset where failure isn't something to fear, FIRST founder Dean Kamen says. It allows students to confront the fear of taking risks, a vital skill for future success in any field.

"Kids often come in not knowing what to expect – of the program nor of themselves,” Kamen says. “They leave, even after the first season, with a vision, with confidence and with a sense that they can create their own future."

Building leaders by community support

Both Lewandowski and Wendell agree. During this competition, they learned valuable leadership skills, effective communication, and the importance of teamwork. They also know it's okay to fail if you learn from it and keep moving forward. The ability to adapt, overcome, and lead are all essential qualities for future success, not just in engineering but in all walks of life.

"Every January, the robotics team participates in a new game that requires them to build a new robot," said Christina Lewandowski, who is also a booster member. New robots can be expensive, so community support is paramount to helping the team. Every bit of community support is greatly appreciated, from fundraisers to business sponsorships to local restaurants feeding the team.

"Overall, support from the community helps them make their robot a reality and allows them to travel to competitions," Christina said.

This support prepares students to become influential leaders and members of their communities.

Looking ahead: A brighter future

This year, the AZTECH Robotics team more than embodied the ethos of FIRST and its "Gracious Professionalism," a term coined by the FIRST Executive Advisory Board Co-Chair, Dr. Woodie Flowers.

Not only did they compete fiercely, but they also showed they understood the importance of teamwork. They exemplified that knowledge, competition and empathy are valuable skills while exemplifying the true spirit of sportsmanship. Now, the team is gearing up for next season with a new robot named "Baby Huey-Hue."

Some are even taking summer courses to up their game next year. But more importantly, they are carrying over the lessons learned this year into next year.

“I think a lot of that comes down to that grit that we have,” said continuing president Ben Lewandowski. "We managed to persevere and never give up."

“I truly believe the individual determination of the members of our team – the FIRST alumni and robotics as a whole – you’re in a great environment where you can learn and that it’s okay if you fail.”