Times~Herald

Love for science, creativity gaining 'STEAM' in Benicia

Numerous exhibits including flight simulator, R2D2, enthrall adults, kids



Science teacher Alan Kahn demonstrates an air pressure experiment to seven-year-old Cristian and his mom Isabel during The STEAM Discovery Festival at Benicia High School on Saturday. (Chris Riley/Times-Herald)

By <u>Thomas Gase</u> | <u>tgase@timesheraldonline.com</u> | Vallejo Times Herald May 21, 2022 at 3:44 p.m.

The common refrain at Benicia High School on Saturday was something like, "Oh my God, I can't believe somebody actually made this!" Other times it was more like, "Wait, how does that actually happen?"

Everyone on hand, however, seemed to have their mouths open in amazement and wonder at the STEAM Discovery Festival, put on by Benicia Makespace and Solano County of Education to help peak interest in creativity and science.

Fifth-grader Miles Banks took a seat in a flight simulator created by Benicia High School senior Gabe Haarberg. Banks took his turn in the virtual reality machine, using a few devices to guide a plane on a nearby screen take off and land from a nearby landing path.

Even if that wasn't exactly what his friends had in mind.

"Crash it! Crash it! Crash it," the friends screamed while Banks replied, "I want to prove that I can land it once, then I'll crash it."

"This is the one thing he definitely wanted to do when he got here," said Banks' mother, Gina. "This will absolutely help him in gaining more interest in science and engineering. He'll go home after this and build an airplane or something. This event definitely fosters that interest. The man who built this (Haarberg) told us there is an engineering course he can take."

Haarberg, who took about a year to build the simulator, was happy when people came by his exhibit. To an extent.

"Well, right now it's not working as well as I want it to," Haarberg said, with a laugh. "If I can get it working better, then I'll be more happy. It's a flight simulator, but it also works for virtual car races, so I may have to switch to that soon. I've always been interested in flying planes, I got that from my Dad. Eventually, I want to build one as an engineer and if I have the time and money also get a pilot's license."

Lilibeth Pinpin, the Director of Innovative Programs and Student Success at Solano County Office of Education, said she helped get vendors and organizations together during the last few months to put the live event together. She was proud of the creativity on display Saturday.

"We have the quilters outside because we want to make this an event for all ages," Pinpin said. "Those that are young at heart as well as others. Yeah, quilting is not robotics, but it's still creativity. I've been very amazed to see all the kids out here today willing to come. We're always afraid that possibly nobody will come out but this is a good turnout. I feel like it's a borderless classroom."



Cori McKinney gets excited as she creates giant bubbles during The STEAM Discovery Festival at Benicia High School on Saturday. (Chris Riley/Times-Herald)

One of the popular robotics exhibits was an R2D2 unit created by Chris James. While kids looked at the R2D2 t— a spot-on match to the one used in the Star Wars films franchise — James hung out nearby on a bench, with most people, especially kids, having no idea he was controlling the replica of the droid.

"This has been very fun," James said. "This is my first live event since the pandemic and I had forgotten how much fun it is. It's kind of perfect because I don't have too much direct activity with the kids so it's safe with COVID."

What did he think of all the youngsters staring in amazement at the R2D2 droid moving around?

"Actually, it's been mostly the dads that have been into it," James said, with a big smile. "There is a whole new generation of kids who don't really know who R2D2 is, but the dads love it. Also sometimes the quick twitches and movements the R2D2 makes scare kids if they are too little."

Jennifer Petsho, a Green Valley Middle School eighth-grader, was on hand to display her exhibit, "What is the Loss of Solar Panel Power Output When Covered by Different Polutants." Petsho originally didn't want to build her exhibit, but she was talked into it and currently has won an award at the California Engineering Fair.

"Seven judges nominated for this special award," said Petsho. "At the beginning of the school year, I gained interest in researching alternative energy sources. I first started working on this project for my school's science fair and I thought it was a great opportunity to apply scientific processes and represent my outcomes. Based on the dust, dirt, pollen and debris that accumulates, solar panels have the potential to decrease efficiency by 15 to 60 percent."

Alan Kahn, a sixth-grade science teacher from San Ramon, put on an interesting display showing why hot ice would melt slower than cold ice, as well as a few other displays of wonder.

"I love that we're finally out here together doing something like this in person again," Kahn said. "It's not just the kids' amazement that gets to me but also the adults, especially when you throw them for a loop. I love explaining the science behind something to them when they see something they're not expecting."

Thomas Gase - Reporter