



**Pride Month
becoming a
new tradition**
Page » A4



**team selected
for Fire Station
No. 5 project**
Page » A8



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REGION

Virtual reality program raises the learning threshold in Utica schools

By **FRANK DEFRANK**

frank.defrank@macombdaily.com
[@fdefrank](https://twitter.com/fdefrank)

An image of a human heart appeared on the computer screen in a specially equipped classroom at Ebeling Elementary School in Macomb Township.

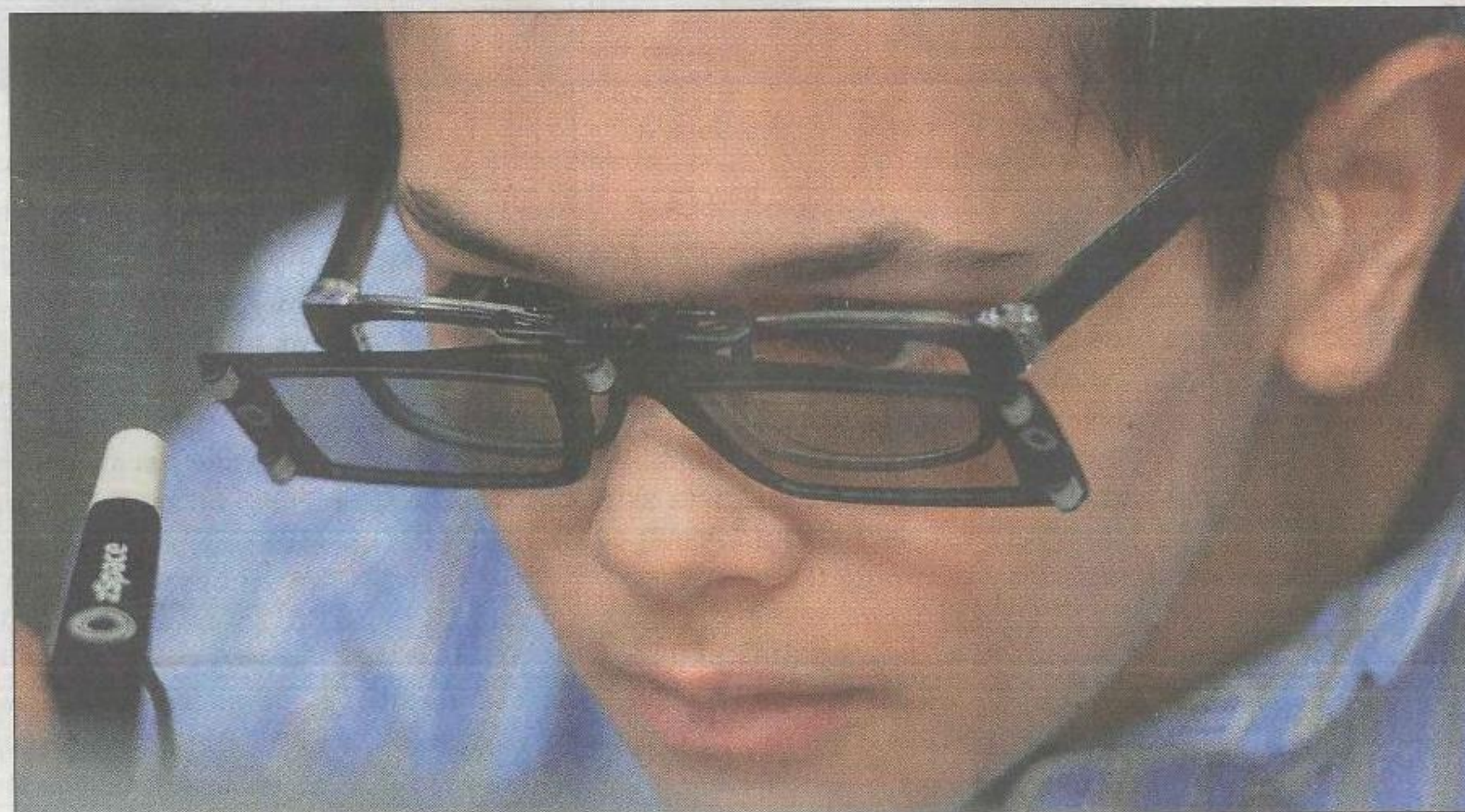
But this was no ordinary image.

Under the skilled manipulation of fifth-graders Rachel Ann Samson and Rayyan Ansari, the heart appeared suddenly in 3-D splendor. The students altered the image to see it from different perspectives. The holder of the stylus could feel the chambers of the heartbeat.

A few more tweaks, and the image separated, revealing the inside of the heart. Now, Rachel and Rayyan could examine it even closer, not unlike a surgeon.

"You can see the heart pop out," Rachel said. "You can actually dissect it and see the insides."

What might have been science fiction a few years ago is educa-



RAY SKOWRONEK — DIGITAL FIRST MEDIA

Noah Tgiros, a sixth-grader at Ebeling Elementary School in Macomb Township, is focused on the roller coaster he is creating in virtual reality.

tional fact in classrooms at four Utica Community Schools elementary buildings.

Crissman, Ebeling, Monfort and Schwarzkoff schools are hosts to zSpace Virtual Reality labs, technology that blends real

world applications in a 3-D, virtual world setting.

And learning may never be the same.

Each lab includes virtual reality student and teacher stations, an interactive stylus, 3-D goggles

and software that enables students to explore everything from the workings of a human heart to building designs, all via virtual holographic images at their fingertips.

"You can also use it to com-

pare things, like a goose to a duck," Rachel said.

Alex Lange, a science teacher for Utica Community Schools, said the technology raises the learning bar to unprecedented heights for students.

"Instead of just ... getting a visual, they're able to go into the technology, pull things apart and dissect it so they can make those connections to the real world," Lange said. "(They can) see how things are restored, how things are created and broken."

Installed at a cost of \$460,000, the zSpace Virtual Reality labs at the four schools serve as a pilot program for the district. School officials believe Utica is the first school district in Michigan to install the zSpace Virtual Reality labs.

The impact of the cutting-edge technology on the students, coupled with feedback from teachers and ever-present financial considerations, will drive decisions on expansion of the program.

LEARNING » PAGE A10



PHOTOS BY RAY SKOWRONEK – DIGITAL FIRST MEDIA

Shooting a photo through the lens of a pair of virtual reality glasses on the "monster" design is sixth-grader Braylon Hatchett.

Learning

FROM PAGE A1

Lange said the early returns from the students are positive.

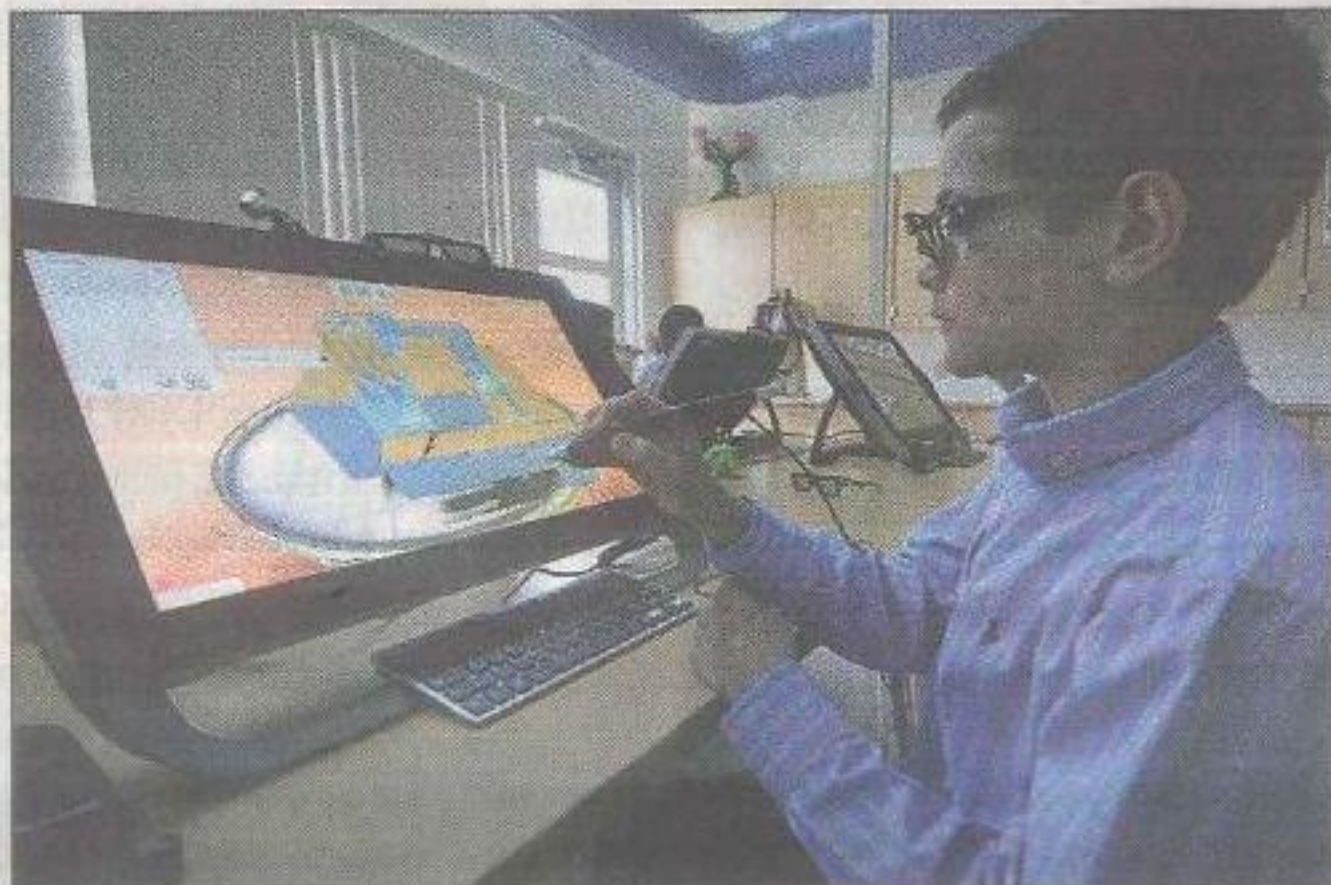
"The engagement has been awesome," she said. "They're excited to come in and try new things and see how the science world is."

Christine Johns, district superintendent, said Utica Community Schools parents demand the best technology possible to ensure their children are prepared for the careers of the 21st century, and the virtual reality classrooms reflect that commitment.

"The district has become an educational leader in the fields of engineering technology, advanced manufacturing and robotics through its location in the heart of the automotive and defense industries," Johns said. "We are instilling the innovation, problem-solving and creative thinking that employers are seeking from today's graduates."



Virtual reality allows the artist, in this case Catherine Ho of KOI Computers out of Lombard, Illinois, the ability to rotate a heart for a different perspective on the individual components of it. In the background, the image is projected onto a screen, allowing several people in the audience to view her work.



Noah Tgiros, sixth-grader at Ebeling Elementary School in Macomb Township, works on his roller coaster in virtual reality.