

CASE STUDY

# zSpace Sparks Creativity at Killough Middle School

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## The Challenge

Incorporating STEM into a multi-disciplinary learning approach



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## The Solution

Leveraging zSpace technology to grow the CTE program across the district and curriculum, from health sciences to automotive education.

When Errol Larkins, STEM coordinator at Killough Middle School (KMS), first saw zSpace at the Baylor College of Medicine at Ryan Middle School, he knew the technology would be a perfect fit for his students.

Larkins leads the KMS STEM Academy, a “school within a school” with the goal of strengthening students’ critical thinking and problem solving skills through science, technology, engineering and math challenges.

“I wanted to integrate more technology into our program, and when I saw zSpace, I was in awe,” he said. “I initially wanted to start with two zSpace units, but after talking to the technology team at the district, I found they were committed to the idea. We ended up getting a full lab of 13 units.”

In the first year of implementation, each science teacher chose at least one curriculum unit to teach with the augmented and virtual reality technology, and Larkins says that among all the students, they’ve used every application zSpace has to offer. In addition to science teachers, math and Career and Technology Education (CTE) teachers have also held classes in the lab.

“We haven’t found an app that the kids didn’t enjoy,” Larkins said. “Using the periodic table and building atoms, exploring the seasons, tilting the earth on its axis, the food web, the pyramids. They’ve enjoyed every experience they’ve had. It’s one thing to be in a classroom and show illustrations. But it’s another thing to see a kid get so engaged in a subject like you see with zSpace.”

In the next few years, Larkins will expand the program by having science teachers teach more lessons with zSpace and by integrating the technology into multidisciplinary projects. Each student completes a PBL – a project-based learning assignment – and he’s looking for ways they can use zSpace to enhance that process as well.

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**ERROL LARKINS**

STEM Coordinator  
Killough Middle School

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One of the most exciting projects for next year was put forth by an eighth-grade student who had recently toured the University of Texas School of Medicine. She proposed a project to design prosthetic limbs for children, with the goal of making them better and even more functional than they are now. Students will use zSpace to design the limbs and 3D printers to produce them.

Larkins has seen great interest from other schools – and even universities – in zSpace. He’s even been able to foster partnerships with higher-education institutions on real-world projects. He’s looking forward to the opportunities zSpace will bring for his students over the next few years.

“zSpace draws people in and fosters questions. Instead of finding specific answers, it encourages students to discover and solve problems in creative ways. That’s the whole goal,” said Larkins.

