

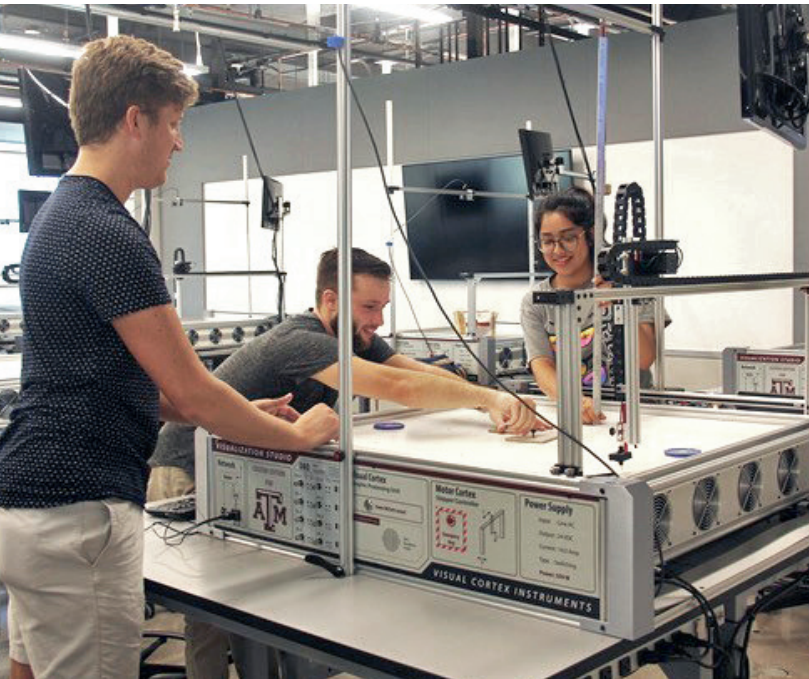


11400 State Highway 30 Suite 601  
College Station, TX 77845

979-704-5444 | 979-704-5596

[sales@visualcortexinstruments.com](mailto:sales@visualcortexinstruments.com)

[visualcortexinstruments.com](http://visualcortexinstruments.com)



# CASE STUDY

The Texas A&M Engineering Academy at Austin Community College strives to best prepare engineering students to enter an always competitive and swiftly growing industry.

But traditional physics and engineering lab equipment often constrains professors in their abilities to demonstrate abstract concepts to students, potentially hindering professors in their instruction and students in their knowledge.

## ABOUT

### Texas A&M Engineering Academy at Austin Community College

A branch of the Blinn College District, The Texas A&M Engineering Academy at the Brenham Campus allows students a unique pathway to an engineering degree from Texas A&M by allowing students to co-enroll at the Academy and Texas A&M University. This opportunity often makes an engineering education more accessible to incoming students, while upholding the Texas A&M College of Engineering quality.

Experienced faculty teach Texas A&M engineering courses for Academy students on the Brenham Campus, providing a world-class engineering education with unparalleled convenience.

## THE CHALLENGE

Providing a high-quality engineering education means having access to top-of-the-line equipment. But in order to best meet the needs of students set to enter a competitive -- and swiftly growing -- field, institutions must empower both professors and students with top-of-the-line technologies and equipment.

The Engineering Academy at Austin Community College's educators were in need of more advanced technology that would allow them to better demonstrate complex, abstract physics concepts to their engineering students -- and that's where Visual Cortex Instruments stepped in to help.



## THE STRATEGY

At its core, engineering demands students understand a variety of complex concepts, many of which are abstract or based on theory. As the field progresses, so must the means by which educators explain the theories and concepts at its core. In their mission to best prepare their engineering students for their entrance to industry, the Texas A&M Academy at Austin Community College needed engineering lab equipment armed with advanced capabilities.

Visual Cortex Instruments have exceeded this need for Larry O’Pella, technical laboratory coordinator for the Texas A&M Engineering Academy at Austin Community College, who uses the entire visualization studio, including the tracking camera, the motorized CNC, the high-lift air table, and the monitor assemblies. Speaking generally about his experience with the suite of products thus far, Professor O’Pella said that “it is such a vital tool that allows you to do many things, versus having to set up individual labs, and understand the specifics about the different labs.”

Professor O’Pella stressed that the Visual Cortex instruments have helped him overcome a challenge specific to complex fields of study. He stated that “the idea of having an instrument, from an engineering point specifically, to test the theoretical procedure really brings it forward to the students.”

Continuing, he emphasized that the duality of the instruments has afforded his students a better understanding of the complex concepts they often encounter in labs. Because the visualization studio offers both data collection and analysis functions, O’Pella notes that the use of the instruments gives students the opportunity to “to understand and assimilate and digest...some of the concepts before they put their hands on it.”

Additionally, Professor O’Pella noted the instruments’ data collection capabilities and how they have positively impacted his students in the lab. “I think the understanding of what was done and being able to see how the lecture material, how the lab requirements and lab deliverables were used...to gather data that satisfied the lab reports was very valuable.”

## A TRUSTED PARTNERSHIP



It is such a vital tool (that) allows you to do many things, versus having to set up individual labs, (and) understand the specifics about the different labs.

*Technical Laboratory Coordinator  
Larry O’Pella, Texas A&M  
Engineering Academy at Austin  
Community College*



## IMPACT

“If I could go back to all the advantages I’ve talked about for the students -- that it’s easier to learn the basic system and reuse -- I think that’s...top of mind as far as the advantages of working with it...”

Professor O’Pella was most thrilled with the versatility of Visual Cortex instruments, specifically noting the adaptability of the visualization studio and its accessories to his student’s various lab modules and assignments. He stated, “the idea that they get to learn this tool, how to use the tool, how to interact with the tool in general, and then simply add on different pieces, different accessories, to be able to go across that breadth of fields of knowledge, I think is really helpful from the student’s viewpoint.”

Additionally, Visual Cortex instruments have allowed Professor O’Pella to demonstrate abstract engineering and physics concepts virtually. Professor O’Pella stated “that combination of... (having) a system that goes from basic mechanics...to electrical performance and electromagnetic phenomena...is a tremendous toolset to be able to bring to the students.”

Continuing, Professor O’Pella detailed problems he’s experienced with traditional lab equipment that Visual Cortex instruments have helped him overcome in his classroom. Re-emphasizing VC products’ advanced design and adaptability, Professor O’Pella regards old lab equipment as “standalone scenarios (that are) not necessarily easier or convenient to have at your fingertips” compared to “the capabilities that you’ve got within visual space with the visualisation station.”

Visual Cortex Instruments’ ongoing partnership with Texas A&M has allowed us to expand and best prove our products’ versatility and effectiveness. We’ve offered prototypes for testing to colleges across the Lonestar State, including Houston Community College, the Alamo Colleges District, and the Dallas County Community College District -- and are hoping to expand to the greater market in the near future.

*Looking for a cutting-edge way to demonstrate complex engineering concepts to students?*

**CONTACT US for a quote today!**

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 [sales@visualcortexinstruments.com](mailto:sales@visualcortexinstruments.com)