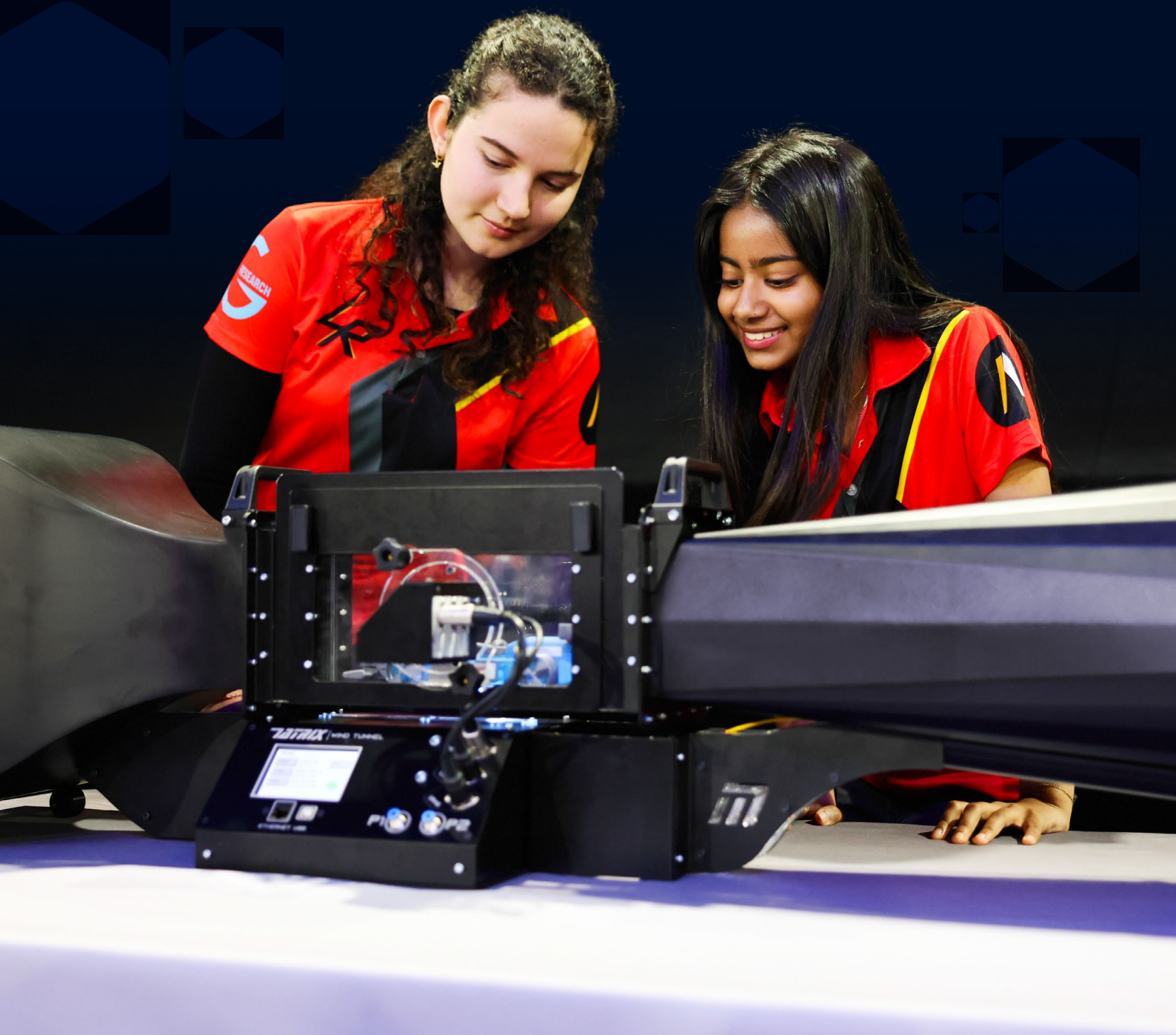


MATRIX

LAB

Inspiring The Next Generation Of Engineers



Inspiring The Next
Generation Of Engineers

www.matrixtsl.com



Cert No. 24094

Our mission is simple but powerful: to inspire the next generation of engineers. At Matrix, we believe that the engineers and technicians of tomorrow will shape a smarter, more sustainable world, and our role is to give them the tools, confidence, and curiosity to get there.

We do this by creating hands-on, innovative, and engaging hardware, software, and supporting materials that captivate and challenge learners. Every product we design encourages exploration, problem-solving, and creativity. From first introductions to fundamental engineering principles to advanced, industry-level applications, our systems bring theory to life and make learning meaningful.

We aim to set a new standard in engineering education by delivering robust, high-quality training systems that are safe, accessible, and built to last. Each product is engineered with care to withstand the demands of daily use in colleges, universities, and training centres around the world. Our focus on reliability and usability means educators can spend less time worrying about equipment and more time teaching and inspiring their students.



Inspiring the Next Generation of Engineers

At the heart of our approach is the belief that true understanding comes from doing. That's why we design equipment that bridges the gap between theory and practice, enabling learners to apply what they've studied in a tangible, real-world way. By experimenting, testing, and building, students develop practical skills and deep technical knowledge that stays with them throughout their careers.

We understand that budgets are always under pressure. That's why we design our systems to offer exceptional long-term value, delivering more functionality, flexibility, and teaching capability for the same investment. Our modular approach means equipment can grow with your curriculum, adapting easily as your needs evolve.

Ultimately, our goal is to empower educators and institutions to inspire the next generation of engineers and technicians. We do this by providing practical tools that work, last, and truly teach. With Matrix Labs, engineering education becomes more engaging, more effective, and more inspiring, helping to shape the future of technology and the people who will drive it forward.

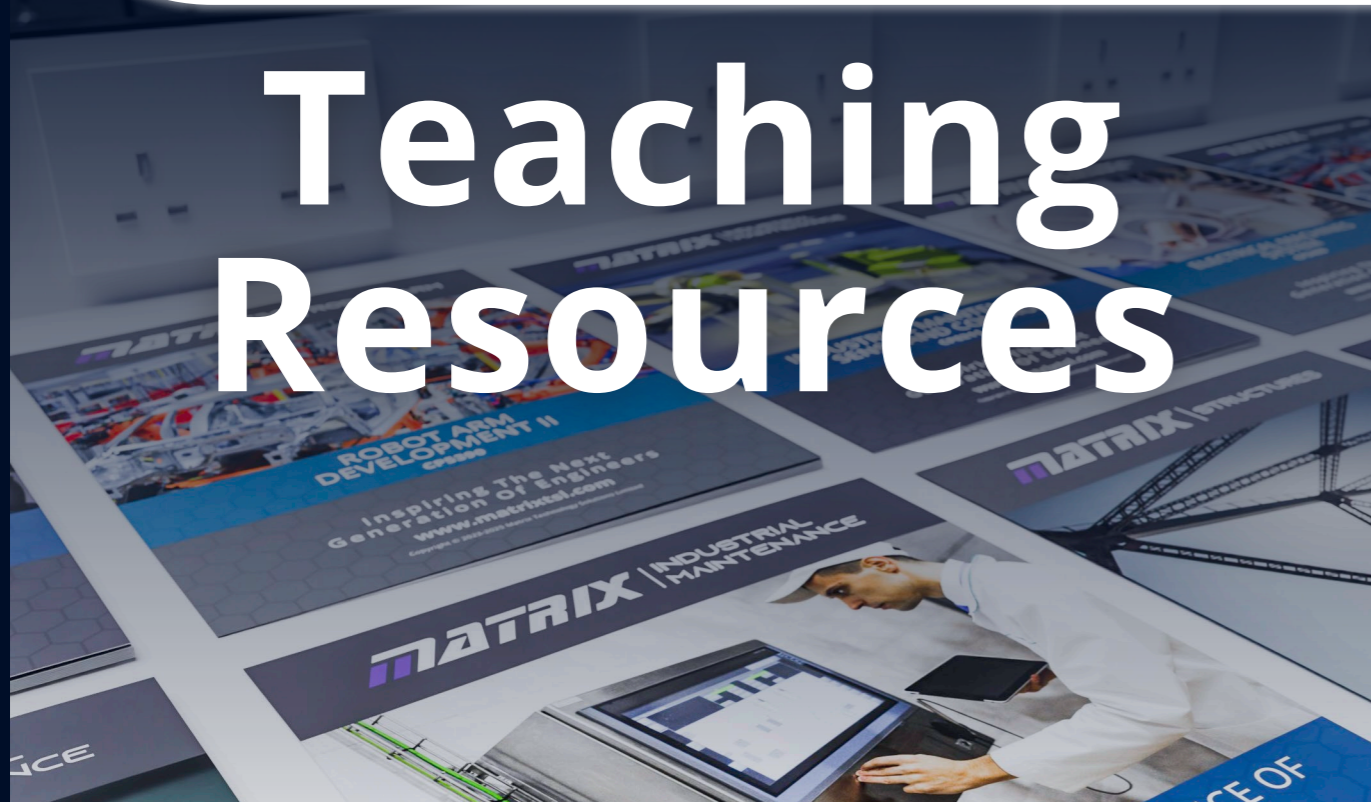




Hands On Equipment



Interactive Software



Teaching Resources

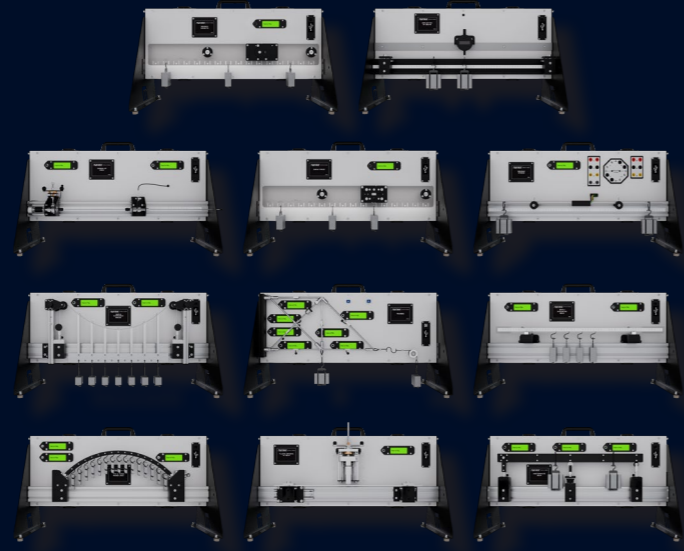


Custom Built

MATRIX LAB

CLASS SETS

Our products cover many ranges and teach the specialist skills needed for tomorrow's engineers to excel in their chosen field. Our equipment is designed to withstand the classroom and provide them with optimal training to suit their needs.



CLASS SETS		
Fundamental Mechanics Class Set		
3	Statics Fundamentals	FM1000
3	Materials Fundamentals	FM9458-3
3	Dynamics Fundamentals	ST1795-2
3	Dynamics Plus	AV5289
3	Mechanisms Fundamentals	TH8352
3	Mechanisms Plus	TH8440
3	Fundamental Mechanics Accessories Kit	TH4090
Structures Class Set		
2	Bending Moments	FM1000
2	Shear Force	FM9458-3
2	Reactions of a Simply Supported Beam	ST1795-2
2	Bending Stress	AV5289
2	Deflection of Beams	TH8352
2	Torsion of Rods	TH8440
2	Trusses	TH4090
2	Plastic Bending of Beams	FM1000
2	Two and Three Pinned Arch	FM9458-3
2	Simple Suspension Bridge	ST1795-2
2	Indeterminate and Continuous Beam	AV5289

LAB OFFERINGS

Kit out a whole lab for your engineering discipline, maximising budget, space and learning outcomes.

CLASS SETS		
Fluid Mechanics and Thermodynamics Class Set		
4	Fluid Mechanics	FM1000
4	Wind Tunnel	FM9458-3
3	Thermodynamics	ST1795-2
6	Heat Exchanger	AV5289
6	Soring Engine	TH8352
4	Heat Transfer	TH8440
Electrical Machines Class Set		
4	Electrical Machines Training System v2.0	EM5154
4	Mechanical Module Add-on	EM8622

LEARNING CENTRE

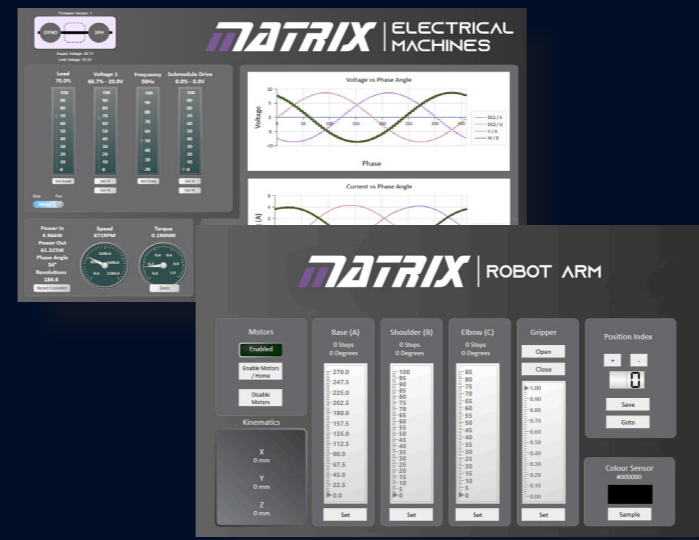
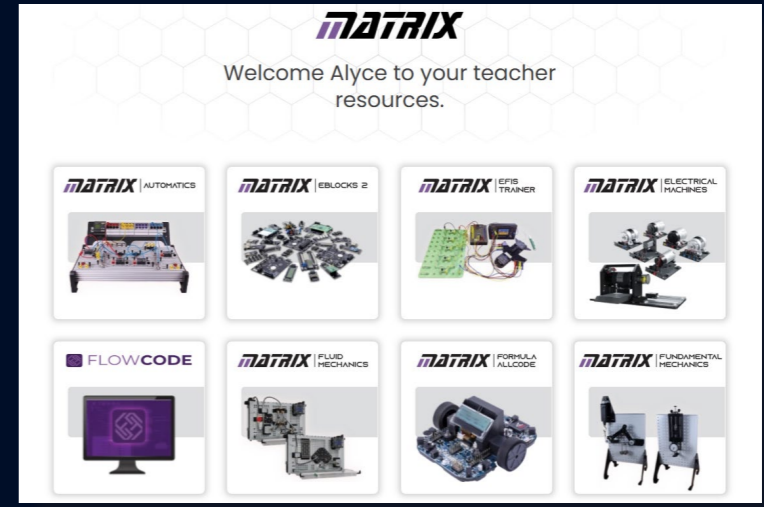
Our Learning centre is home to all of our student worksheets, written in collaboration with engineers and teachers to maximise learning outcomes.



MATRIX LAB

TEACHER PORTAL

The teacher portal is home to teachers guides, answers, results and much more to support lessons and planning.



CUSTOM SOFTWARE

Software is created with equipment by our developers for ease of operation and export of results for effective analysis.

ONLINE LEARNING ENVIRONMENT

Our online learning environment takes the provided lab worksheets to the next level, with interactivity, industrial situations, real-time student feedback, simulation and progress tracking.



MATRIX LAB

TEACHER TRAINING

With all Matrix Labs we offer teacher training on all equipment to both existing and future teachers, whenever they might join!



LIFETIME SUPPORT

We are committed to supporting education. From teacher training to classroom support and technical enquiries, we are here to help.

FURNITURE

Matrix Labs have the option to add furniture. We can kit your lab out with tables, chairs, desks and anything else you need to add to your space.



MATRIX LAB

STORAGE

We will calculate exactly how much storage you need for your Matrix equipment - we will even plan this around the space you have available.



LAB DESIGN

Matrix Labs come with a free design service. We will take your room measurements and class numbers and plan out the perfect space.

TRANSLATIONS

All Matrix literature is available in French and Spanish as well as English. Need another language? Let us know and we will arrange to make it happen



RANGE COVERAGE

Our range of products and professional services spans multiple educational areas and delivers the specialist skills needed for tomorrow's engineers to excel in their chosen field. Our equipment is designed to withstand the rigours of classrooms and labs, and provide the optimal training experience.



ELECTRICAL AND ELECTRONIC

MECHANICAL

MANUFACTURING

AEROSPACE

AUTOMOTIVE

SKILLED TRADES

RENEWABLES

CIVIL

INDUSTRIAL MAINTENANCE

CHEMICAL

DEFENCE

RANGE COVERAGE

Each product is designed to deliver targeted learning that covers a broad range of principles, catering to beginner, intermediate, and advanced levels.

HIGH SCHOOL

COLLEGE

UNIVERSITY

INDUSTRY

PRIVATE TRAINING PROVIDERS



Worldwide Availability

Our products and network of global agents support educational institutions worldwide with reliable and scalable solutions.

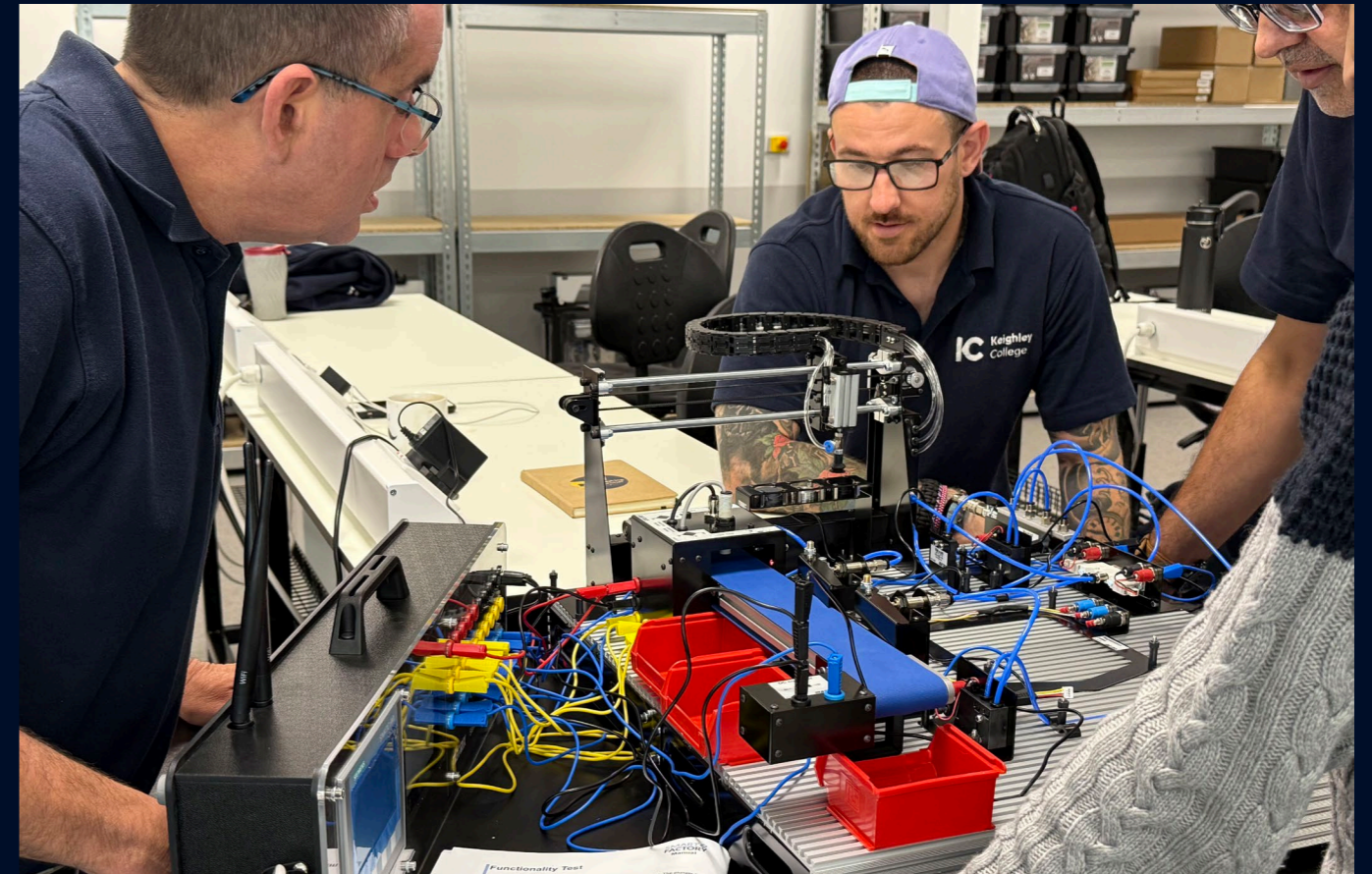


KEIGHLEY COLLEGE CASE STUDY



Keighley College approached us with an exciting challenge - to help create a brand-new Engineering Hub at their Bradford Road site in Keighley, West Yorkshire. At that point, it was nothing more than an empty shell with no electrical installation or defined plans for how the space would be used.

Our team began by taking precise room measurements and discussing the college's teaching requirements in detail. From these conversations, we were able to recommend the right mix of equipment to support their curriculum and teaching goals. This early collaboration guided us in planning not just the storage and bench requirements, but also an efficient layout for the entire room. Our detailed drawings enabled the college's team to begin preparing the space for installation.



Once the electrical work was completed and the designs were approved, we commissioned custom-built laboratory benches and tables, which were delivered and installed by our trusted partners. The final stage was fitting storage solutions, specialist equipment, and custom graphics which were the perfect finishing touches to the space.

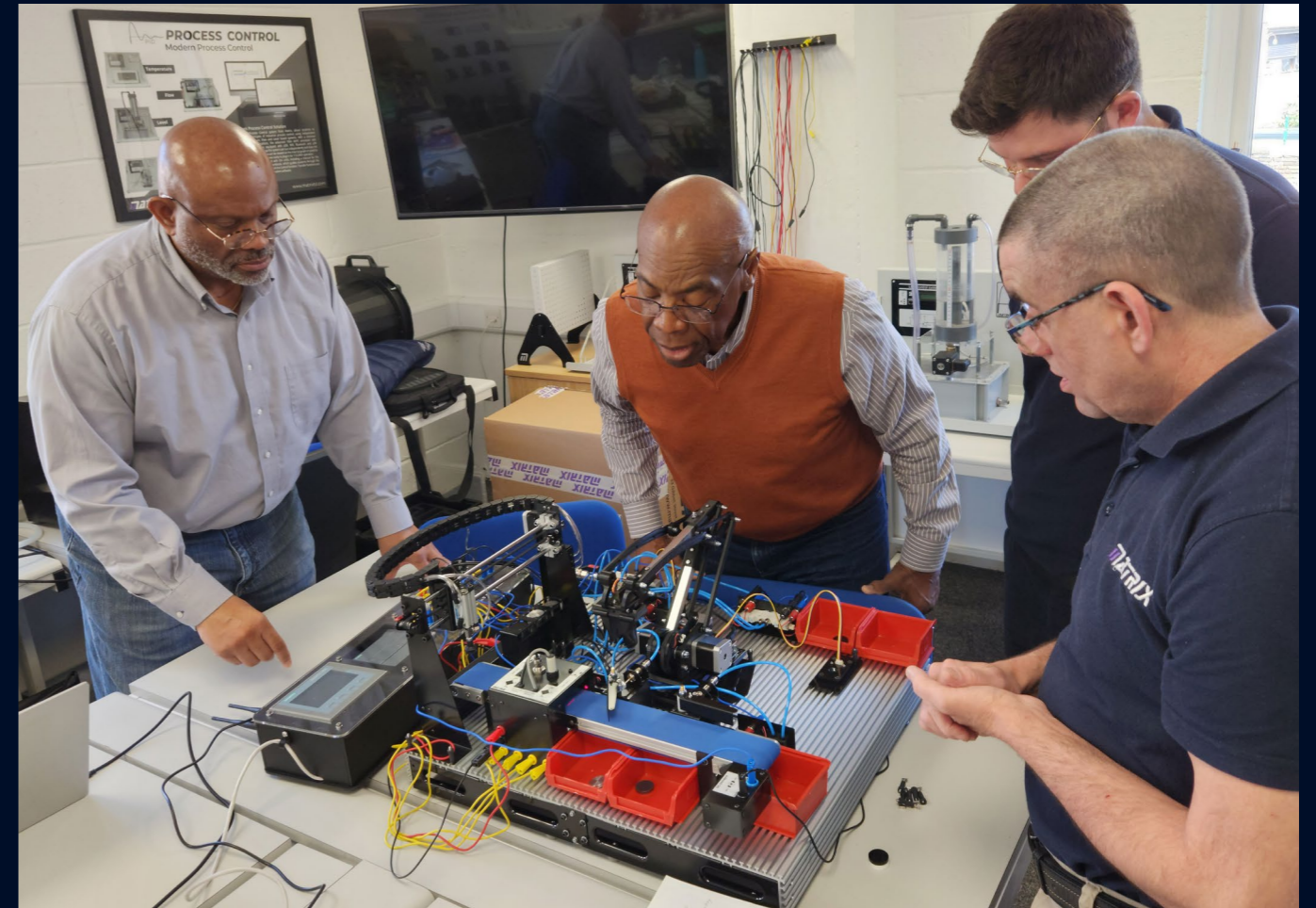
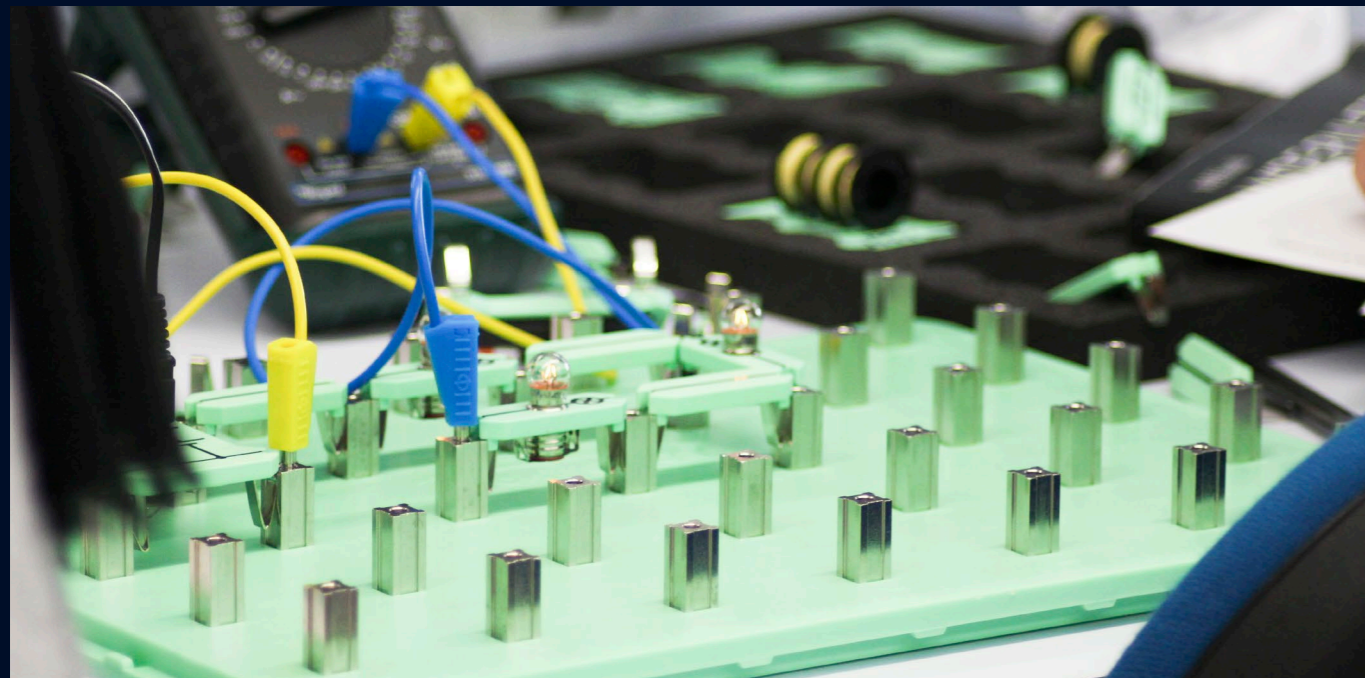
We are proud of the transformation of the space at Keighley College. The purpose-built Matrix Lab not only provides unmatched value for the college's engineering teaching, but also maximises teaching time, and will go a long way towards inspiring the next generation of engineers.



THE STATE COLLEGE OF FLORIDA, MANATEE-SARASOTA (SCF)



The State College of Florida, Manatee-Sarasota (SCF) serves as a regional hub for applied engineering education and workforce development. Its Associate in Science in Engineering Technology program emphasizes advanced manufacturing, electronics, alternative energy, and computer-aided design, aligning curricula with nationally recognised industry standards. In partnership with the University of Florida's Herbert Wertheim College of Engineering, the Gator Engineering initiative enables students to begin foundational coursework locally before transferring into a four-year program. Complementing these pathways, the 26 West Centre for Advanced Technology and Innovation provides state-of-the-art facilities that foster hands-on learning, interdisciplinary collaboration, and entrepreneurial engagement. Together, these resources position SCF as a critical institution in bridging academic preparation with industry needs in the engineering and technology sectors.



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“My learners are students in a college level Engineering Technology program leading to an A.S. Degree. I am the Program Manager and teach college level courses in Electronics, PLCs, Manufacturing, Automation and Robotics. This includes instruction on PLCs and robotic programming with laboratories in circuits and measurements.

I use the Matrix Smart Factory, Matrix Locktronics and Matrix PLC with HMI which I first discovered through my representative at Technical Training Aids, Keith Edwards.

I began using the Matrix products this school term and teach students using the equipment and curriculum provided by Matrix.

Features that stand out are the compact footprint for the Smart Factory which still includes major factory components like a gantry crane, conveyor belt and a robot arm.

In the short time I have been using the Matrix resources, I have noticed increased student interest. Students love Matrix equipment in the laboratory and are responding enthusiastically. They are looking forward to learning skills through the product applications.

It was a fairly easy start due to the staff at Matrix. I was able to visit the manufacturing location in the UK with Keith Edwards and learn how it was made, assembled and programmed. The effort and company resource used to create a valuable learning experience was truly appreciated. The hands-on approach, supportive environment, and attention to detail are apparent to me. I am grateful for the opportunity to collaborate and look forward to future support and work with Matrix.”

Sam Aldrich – Program Manager



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