



AME - The Next Level of Electronics Manufacturing

rapid.tech 3D | May 16, 2024 | Erfurt

Alexandre Schäfer
Head of Marketing & Sales



J.A.M.E.S

SHOULDN'T WE START RETHINKING ELECTRONICS MANUFACTURING?

Leaving the traditional way of conventional PCB
design and manufacturing

AM



Free Volume Formfactors

AME



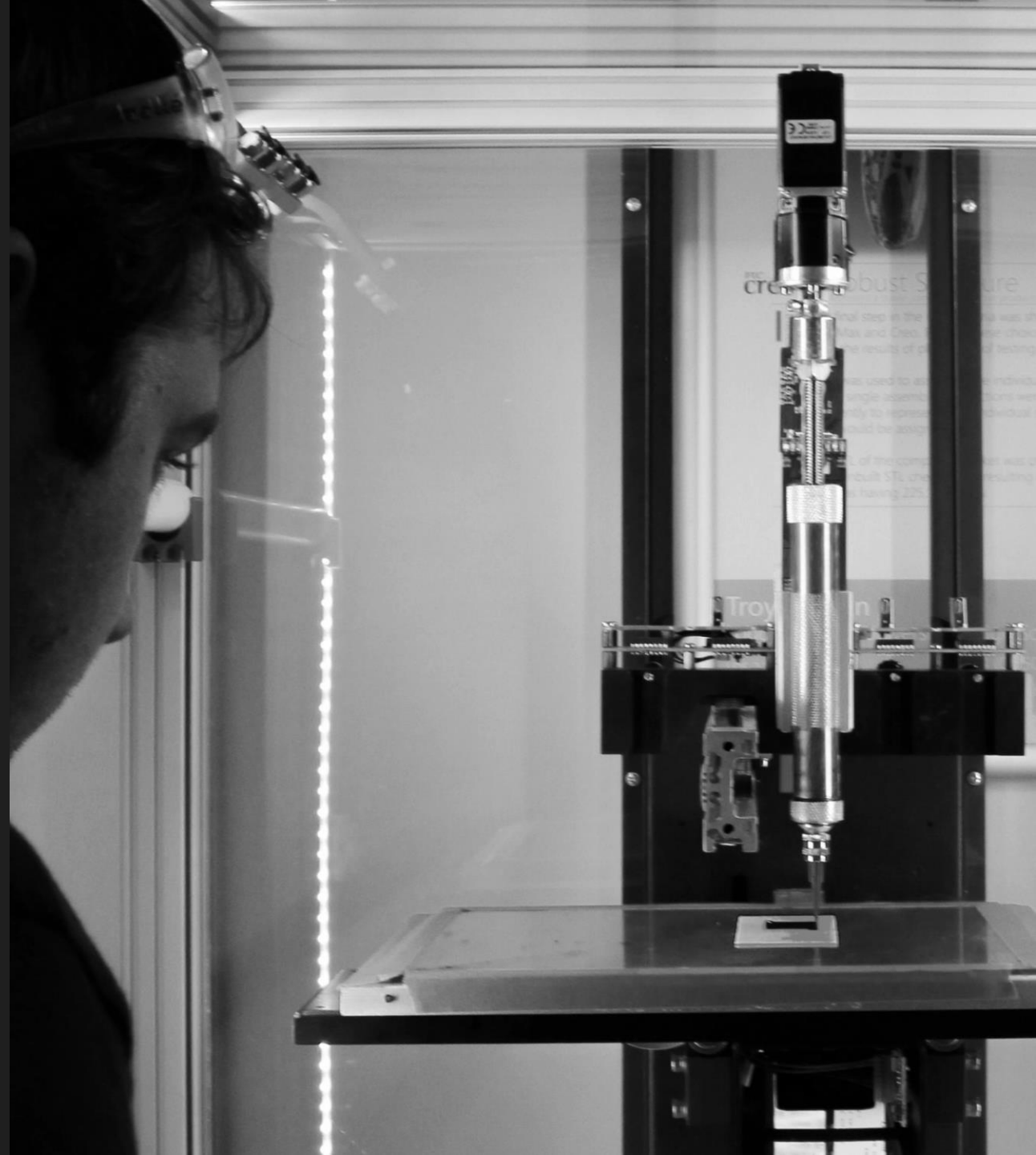
Electrification of existing surfaces

AME

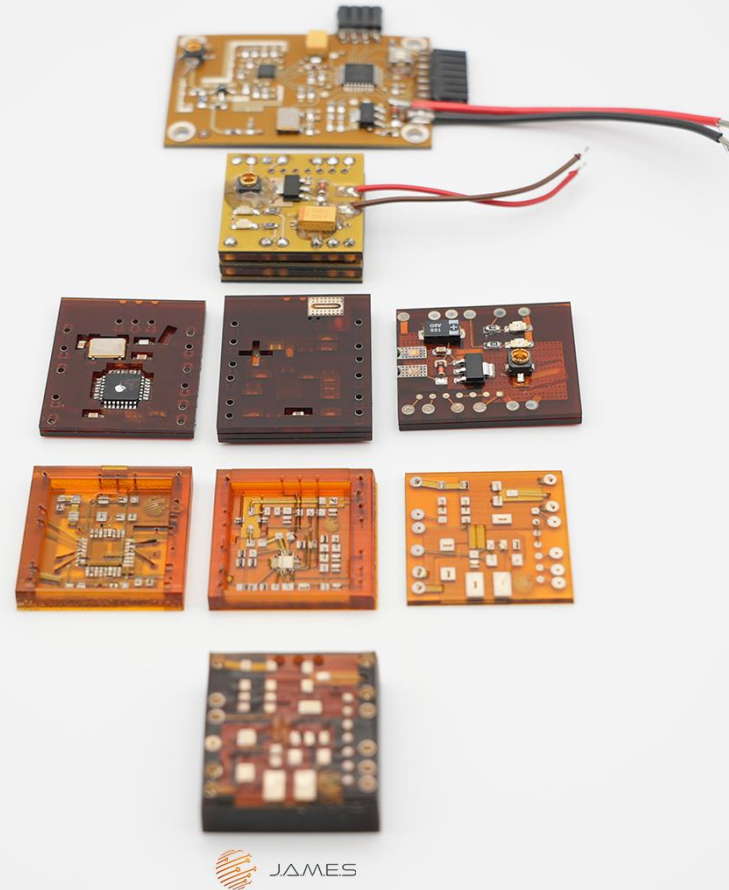


Formfactor driven by
Electrical Requirements

Sample Applications



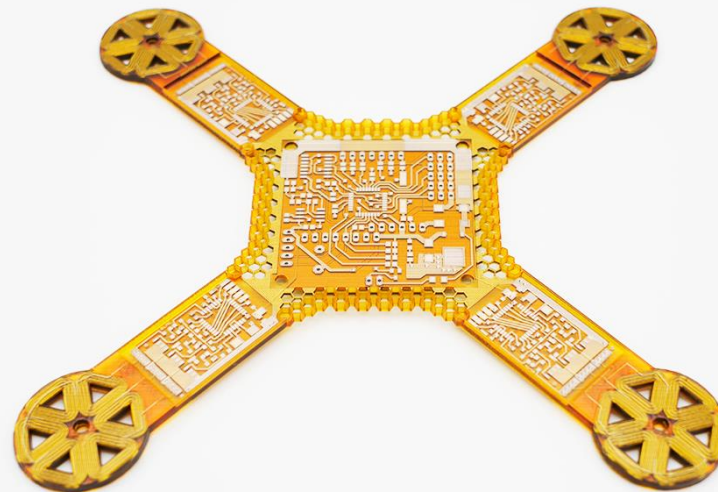
PLL cube



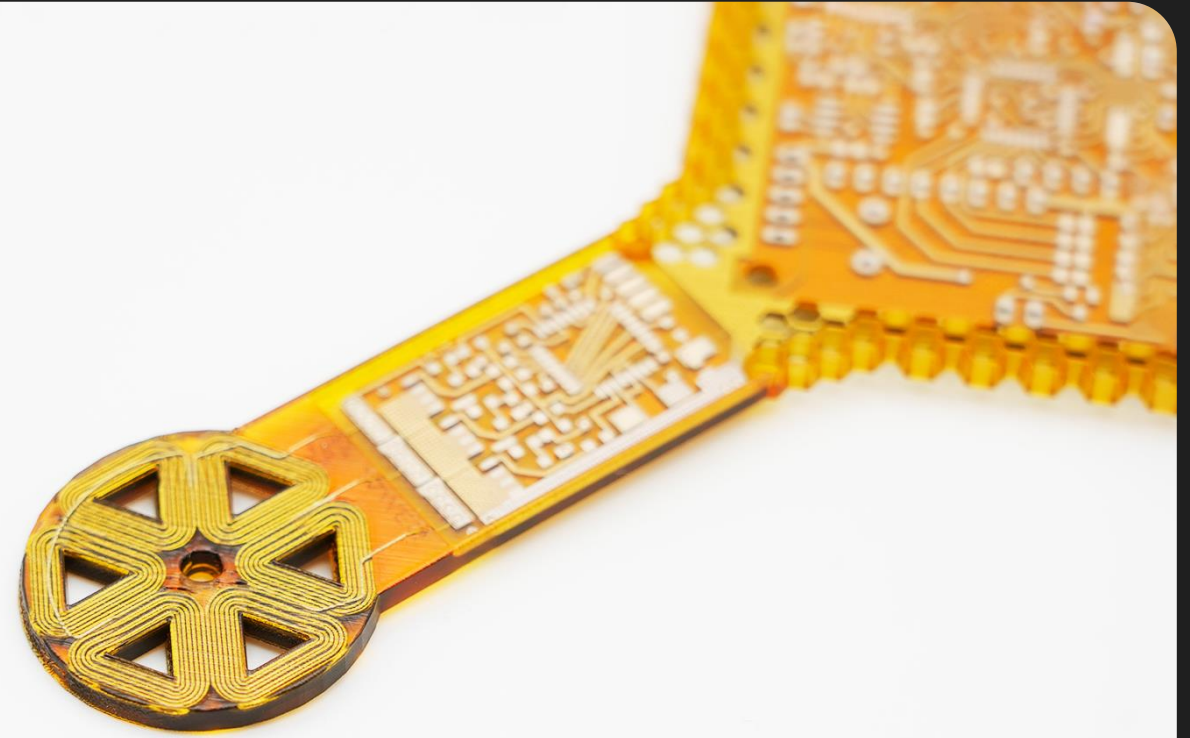
PLL cube



AME drone



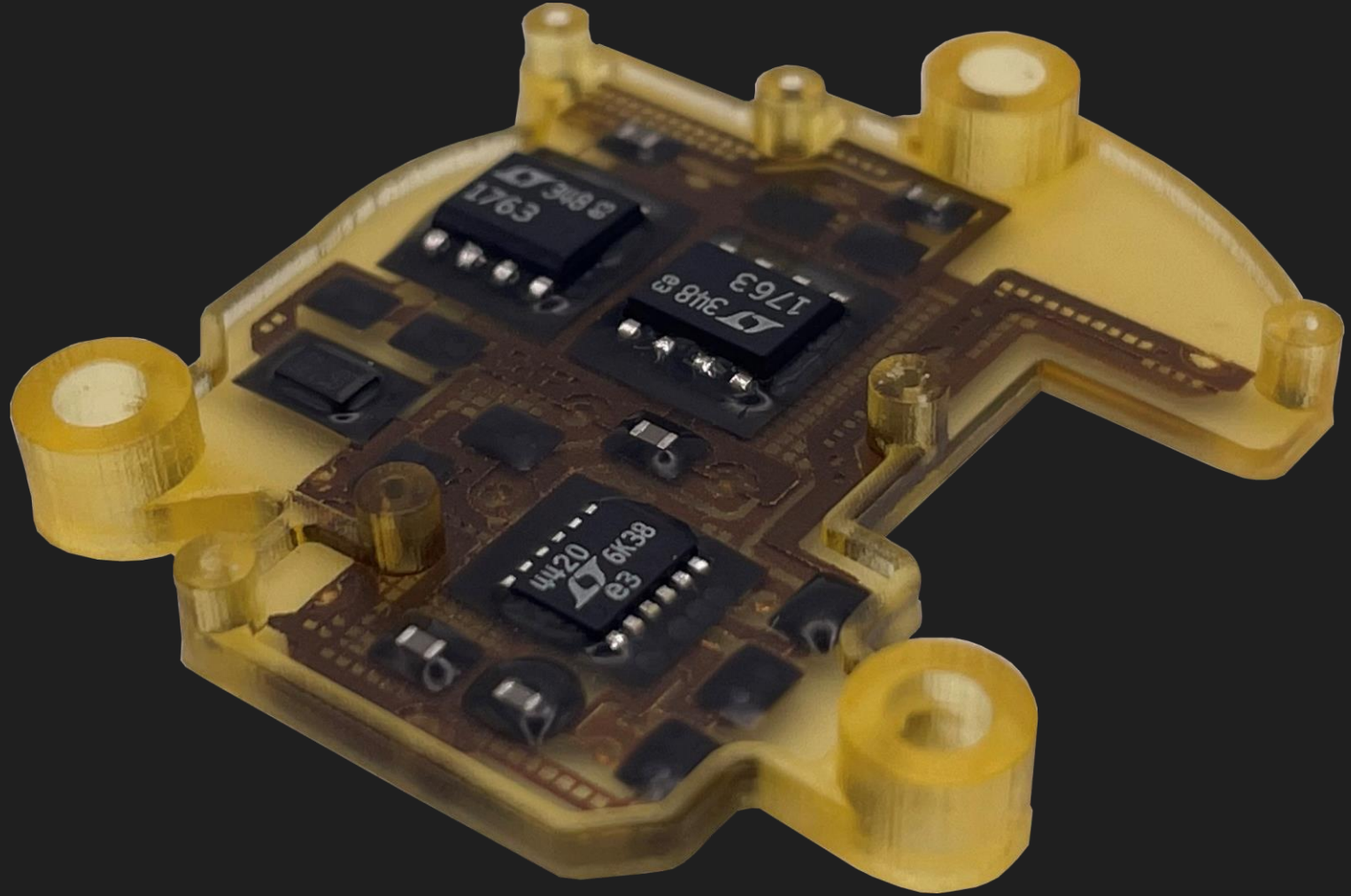
AME drone



J.A.M.E.S NFC coin

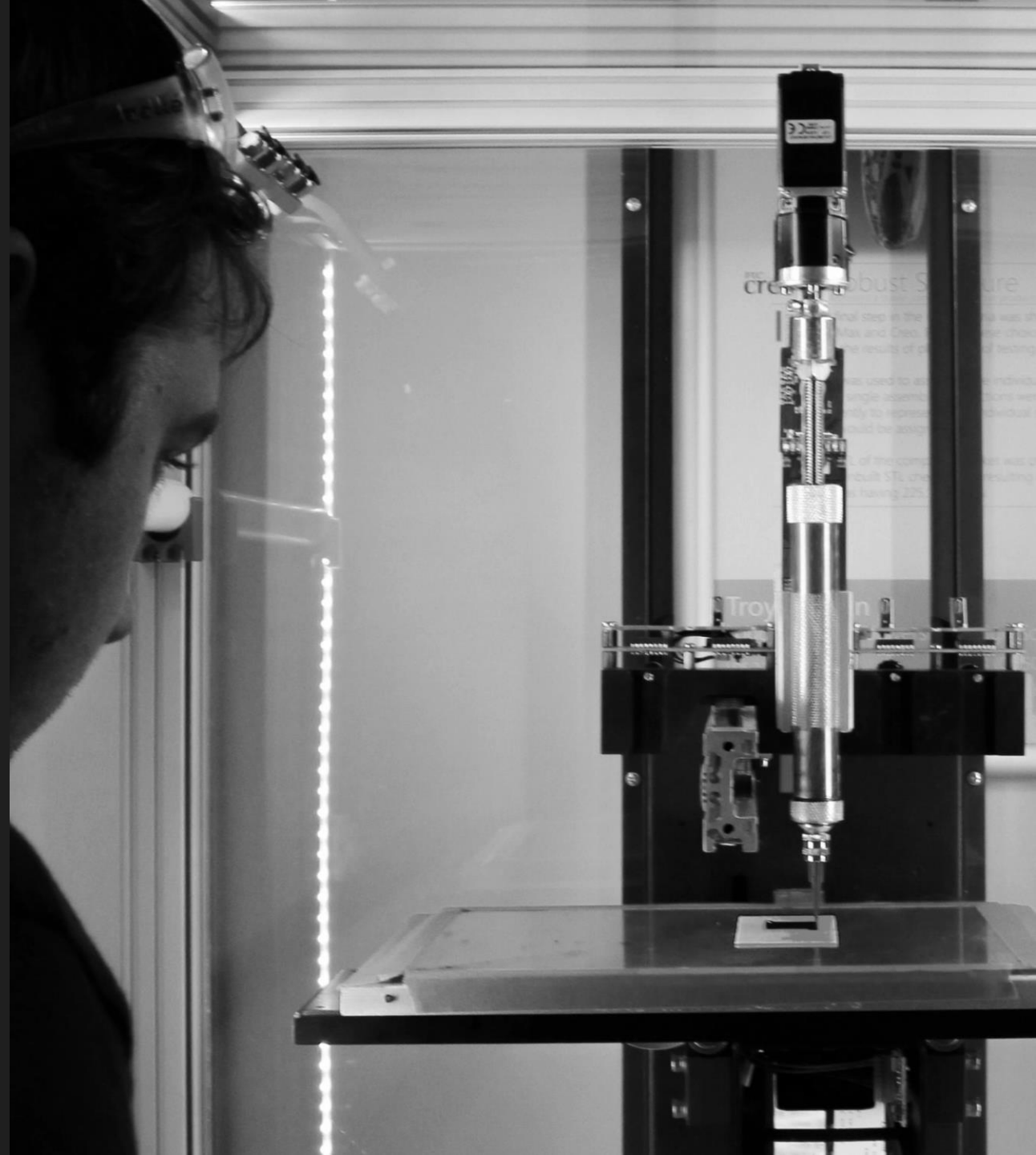


FUJI power regulator





Why AME?



Benefits



1

Form factor

degree of freedom to design electronic applications

2

Electrical

avoid vias, no layers, better RF-performance, higher signal integrity

3

Sustainability

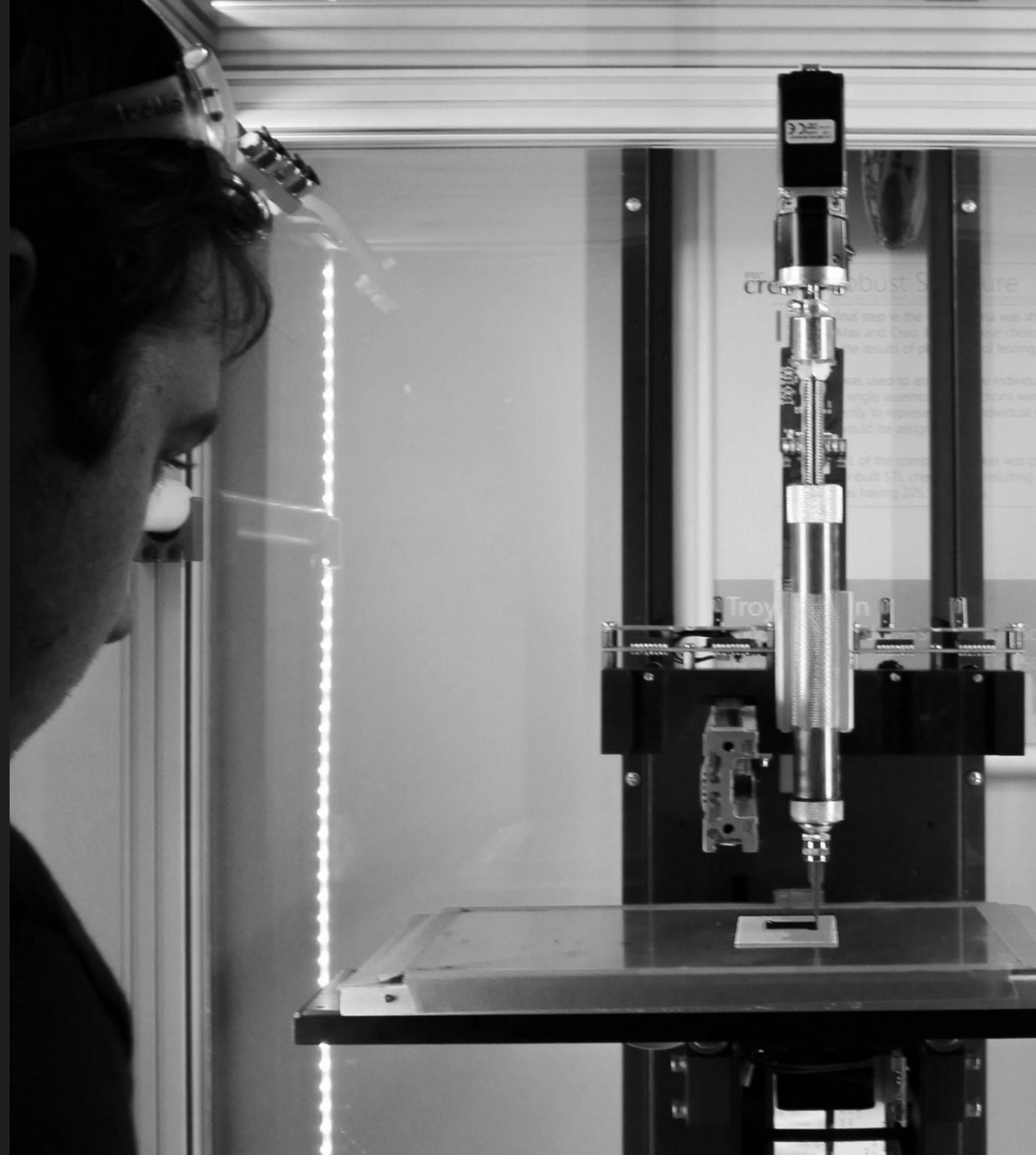
less process steps, less waste, less energy consumption

4

System

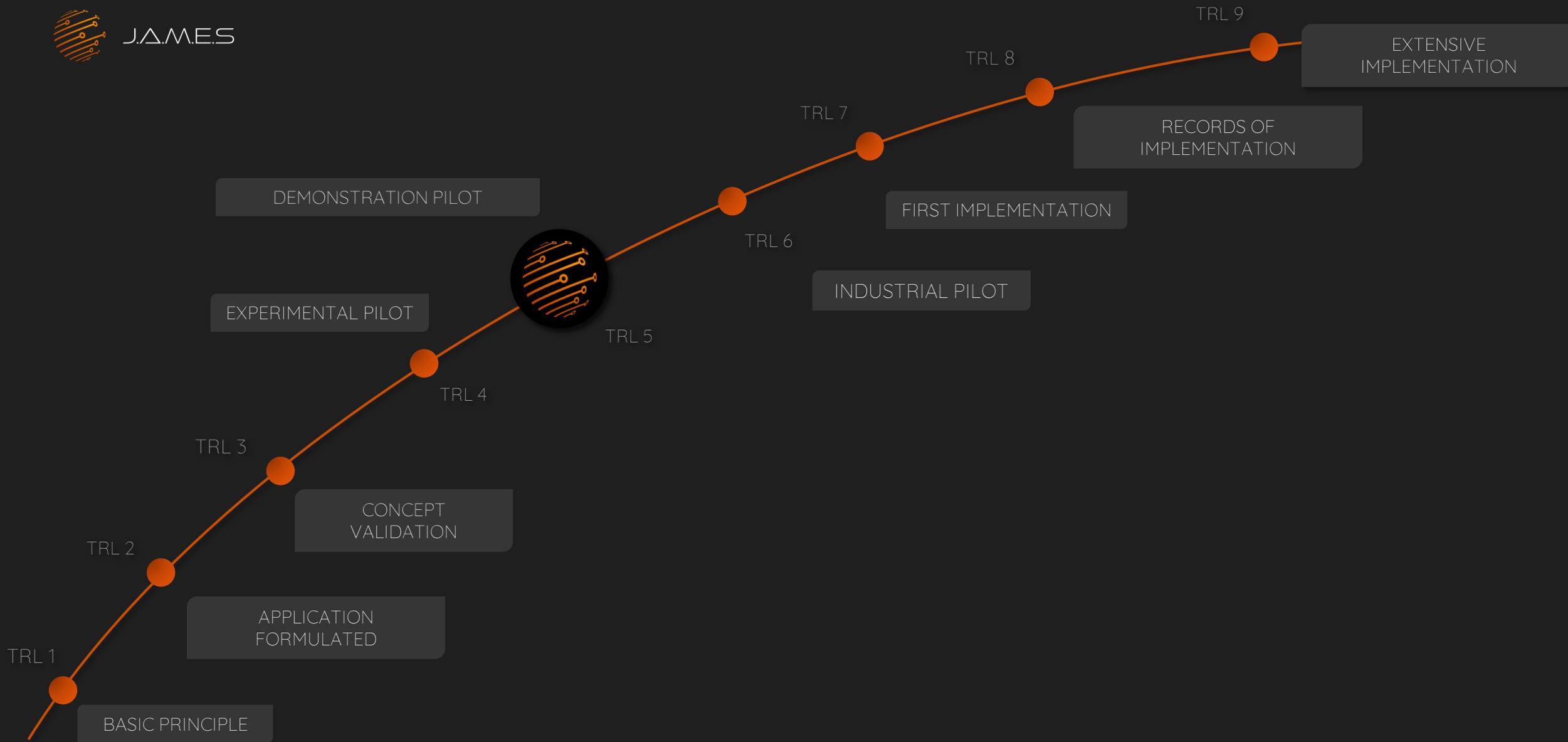
lower weight, less or no assembly

Current Technology Status?





JAMES



Challenges



1

Design tools

merge eCAD and mCAD, different software tools, know-how in both worlds needed

2

Process stability & Reproducibility

3

Norms & Standardization

needs identified, first steps are done

4

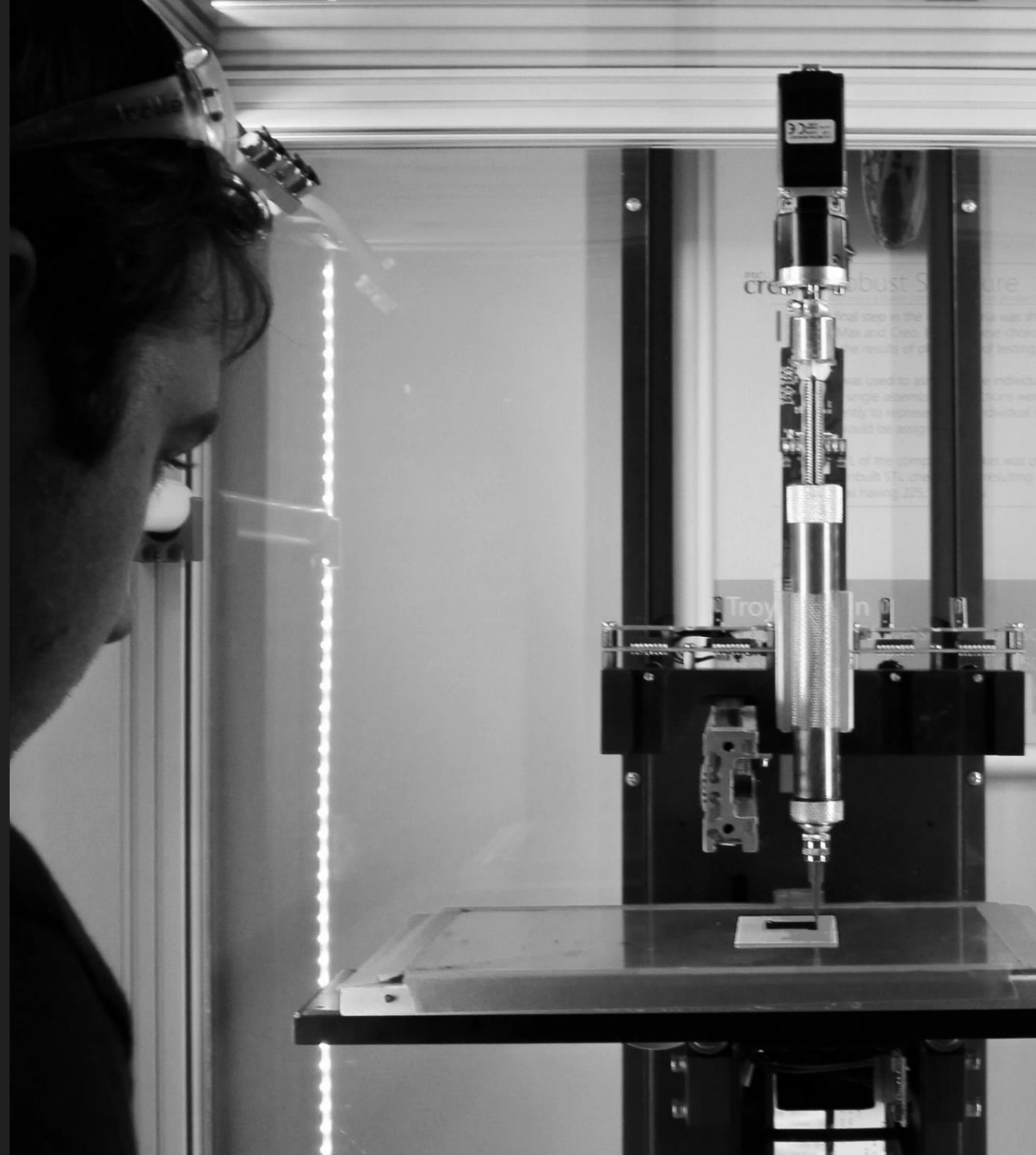
Accessibility

high invest in machines and know-how



JAMES

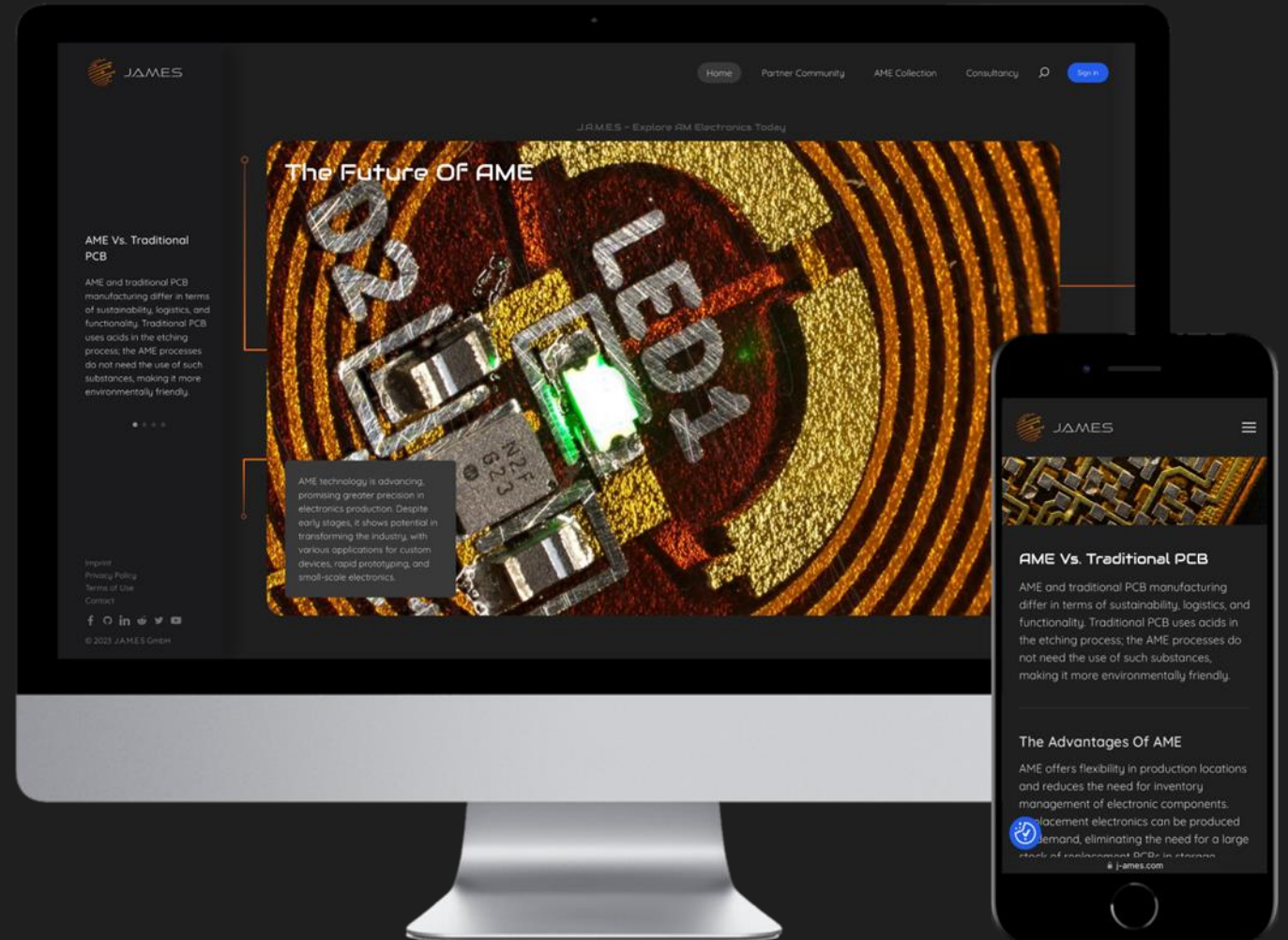
How To Proceed?



WHAT J.A.M.E.S CAN DO FOR YOU?

Single point of contact for all information about
3D printed electronics

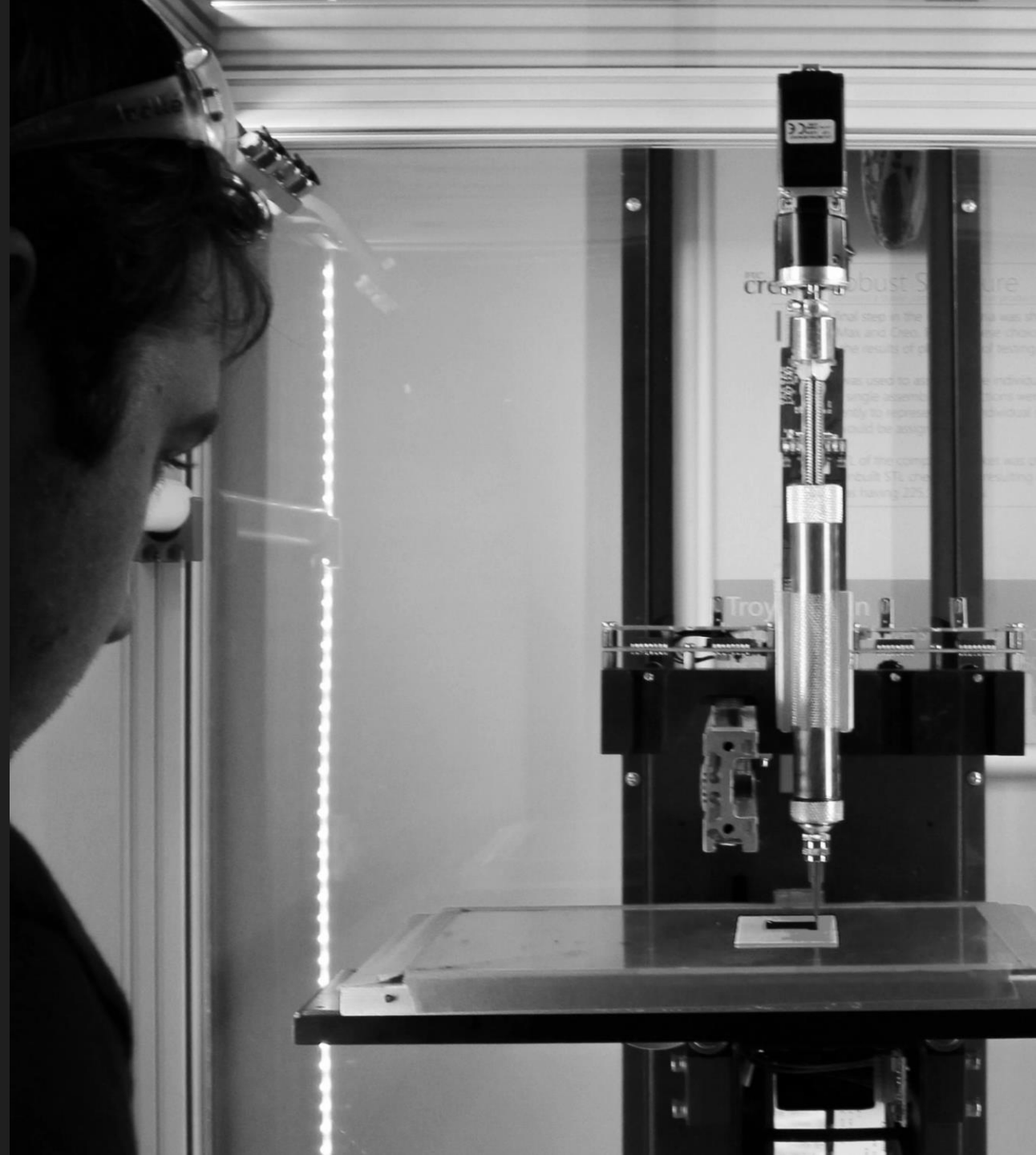
www.j-ames.com





JAMES

Partner network?



partner overview



Fuji is a leading provider of SMT and factory automation equipment and solutions, striving to be a company that enriches the lives of those in the world around us.



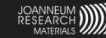
XTPL is a company developing globally innovative, additive manufacturing technology that enables ultra-precise dispensing of nanomaterials.



A groundbreaking advancement has emerged in electronics production with 3D printing technology. This innovation offers endless possibilities and personalized designs to be achieved, opening up...



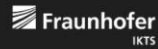
Founded in 2013, Voltera is a technology company that is driving change in the additive electronics industry. We make benchtop electronics printers that enable rapid iteration and spark innovation...



MATERIALS offers the development of 2D, 2.5D and 3D Printing Processes utilizing technologies like Inkjet Printing, Aerosoljet Printing or Screen Printing. Main activities also include the...



Polymertal has been developing highly specialized surface coating technology allowing flawless metal plating on plastic and composite materials to produce Hybrid Products.



For more than 30 years, Fraunhofer IKTS has been demonstrating the potential of ceramic materials. We develop electronic components that are suitable for use in harsh environments with high...



nScript manufactures next-gen, high-precision 3D Manufacturing equipment, specializing in microdispensing. We provide solutions for industrial applications in diverse industries...



A provider of intelligent machines for the fabrication of Additively Manufactured Electronics.



TUL is a dynamic university of medium size that joins forms of technical and university education. It has well-equipped laboratories and top-quality teams of researchers.



Manufacturing Technology Centre develops and proves innovative manufacturing processes and technologies in an agile, low risk environment, in partnership with industry, academia.



GIS offers technology that is used worldwide in industrial inkjet 3D printing, printed electronics and other additive manufacturing applications.



JAMES established the first online Community for 3D printed electronics on a cloud-based platform, with which all individuals and organizations can share the latest trends, news and designs for 3D...



HENSOLDT is a German champion in the defense industry with a leading position in Europe and a global reach. We develop innovative and customer-specific solutions in the fields of radar...



Advanced Printed Electronic Solutions specializes in multi-material, multi-lot, 5-axis 3D Additive Manufactured Electronics (AME). The Company offers product solutions for AME, as well as...



heliguy Lab is a UK-based distributed manufacturing and product design department, specialising in electronic miniaturisation, and creating innovative solutions for the UAS industry...



Transforming the way electronic devices are designed and made. 3D-printing allows for direct, twisted, coaxial and shielded routing, bus structures and embedded components - and...



Essemtec leads the industry in development and manufacturing of adaptive dispensing and pick & place equipment.

