



Now with **LIVE** translated captions

WEBINAR

Reimagining Education & Training for Healthcare Technology Management

Wednesday

APRIL

19

2pm
UTC

10am
NY



Register for free: <https://rb.gy/lvdrmj>





GCEA is excited to announce the addition of a new **live translation** feature that we believe **will bridge the language gap and enhance your video conferencing experience** through Global Clinical Engineering Alliance programs even further. As part of our commitment to delivering innovative and educational video communications training, we have incorporated a new captioning option that facilitates the ability of our members to elevate their understanding of the spoken content during GCEA education and meeting events, by simultaneously customizing captions in their preferred language.



Simply click on the Captions tab at the bottom of your screen and select the caption language you would like to read from the drop-down menu.

English, Arabic (Beta), Chinese (Traditional) (Beta), Chinese (Simplified) (Beta), Czech (Beta), Dutch, Estonian (Beta), Finnish (Beta), French (France), Hebrew (Beta), Hindi (Beta), Hungarian (Beta), German, Italian, Japanese (Beta), Korean (Beta), Polish (Beta), Portuguese, Spanish, Romanian (Beta), Russian, Turkish, Ukrainian and Vietnamese.



Reimagining HTM Education and Training

The role of XR and other Advanced Technologies

The College of Biomedical Equipment Technology (CBET) was founded in 2010. Originally designed as a vocational trade school serving students in central Texas, the College has grown significantly through the years and is now the largest producer of Biomedical Equipment Technicians in the United States.

“The College of Biomedical Equipment Technology provides innovative and relevant Healthcare Technology Management, Compliance, and Imaging education, training, and career services to prepare our students to meet the evolving needs of employers in the healthcare Industry.”



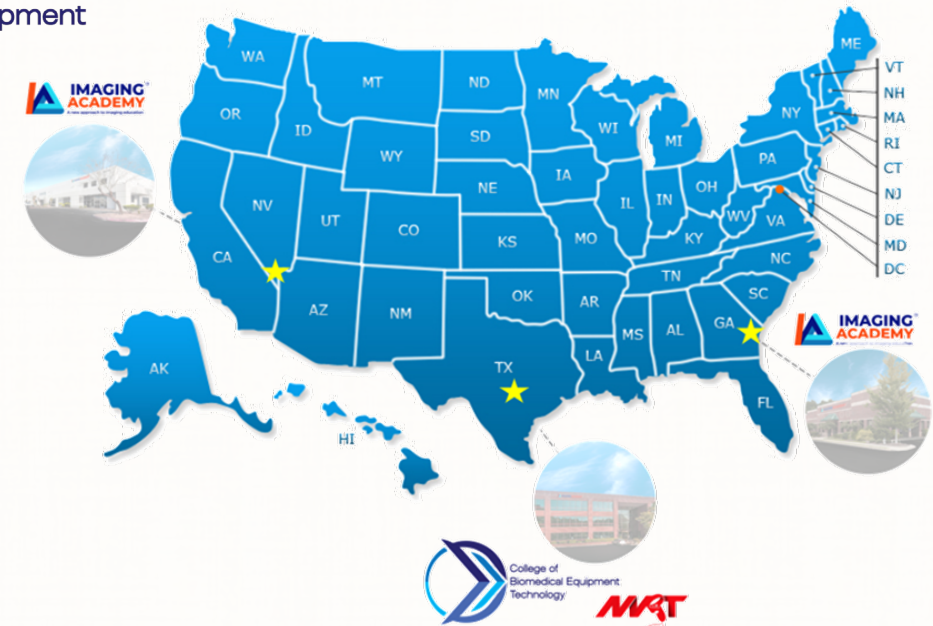
Dr. Richard Gonzales
President, College of Biomedical
Equipment Technology



Matthew Bassuk
CEO, NVRT Labs

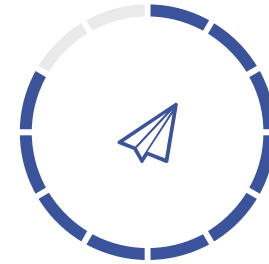


www.cbet.edu



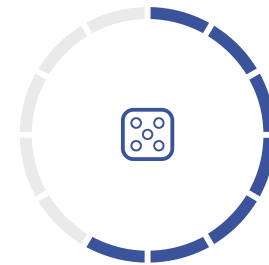
REVOLUTION NOT EVOLUTION

Is education as we know it is hurdling toward extinction? A great upheaval?



Yesterday

Built on a rich foundation of trust and tradition



Today

Disruption and technology; highly competitive; accreditation; ROI



Tomorrow

Knowns and unknowns; many more options

MEGATRENDS



SOME WILL
SURVIVE
SOME WILL
THRIVE



We must adopt strategies to stay ahead of the curve in an Era of Chaotic Changes and Disruptive Forces.”

-David Espindola

The Exponential Era

Rapid Advancements in Technology



Defense Advanced GPS Receiver "DAGR"

2009

Secure, SAASM-based GPS receiver
Anti-Jamming & Spoofing
Handheld and Vehicle Integration
4 AA batteries provide 22-hours of operation

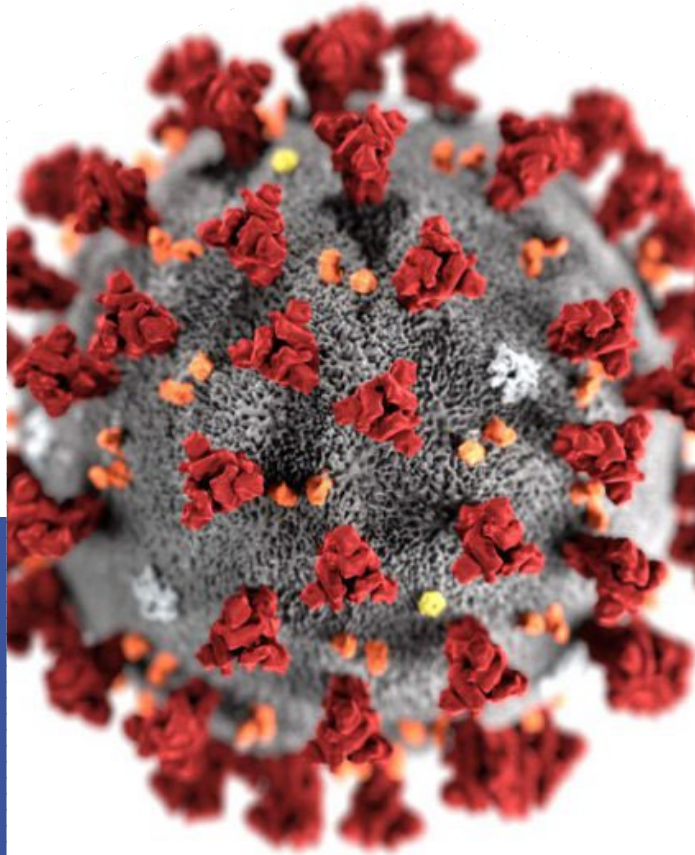


1988

Continuous illumination for 12- hours
Shock and Waterproof
Accuracy +/- 40 mils
Temperature range -50 to 150 F

Lensatic Compass





GLOBAL PANDEMIC

The Pandemic permanently altered higher education, accelerating change, validating concepts, and transforming expectations.

✓ **Accelerated
Change**

The transformation in education that was occurring accelerated

✓ **Validated
Concepts**

Permanently altered the landscape, nearly 100% increase in Online Program Enrollment 2020-2021.

✓ **Massive
Transformation**

Accelerated pace of change with regards to the demands of students/workforce

REJECTING TRADITION

For the greater part of two centuries, higher education in the United States was dominated by traditional values and industrial era thinking, the United States is in the midst of profound transformation from an industrial-based economy to an increasingly interconnected knowledge economy.



Industrial-Based

Industry is the driving factor
(geographically bound)



Knowledge-Based

Technology is the driving factor
(non-geographically bound)

CONVERGENCE COCKTAIL



Megatrends

Environment, Economy,
Digital Disruption, Societal
Change, Hyper Connectivity,
XR

Point of Convergence

Meeting Industry Demands,
high ROI training and
education, pace with
technology

Enabling Technologies

Artificial Intelligence,
WEB 3.0, Metaverse,
Blockchain, CHAT GPT,
Quantum Computing

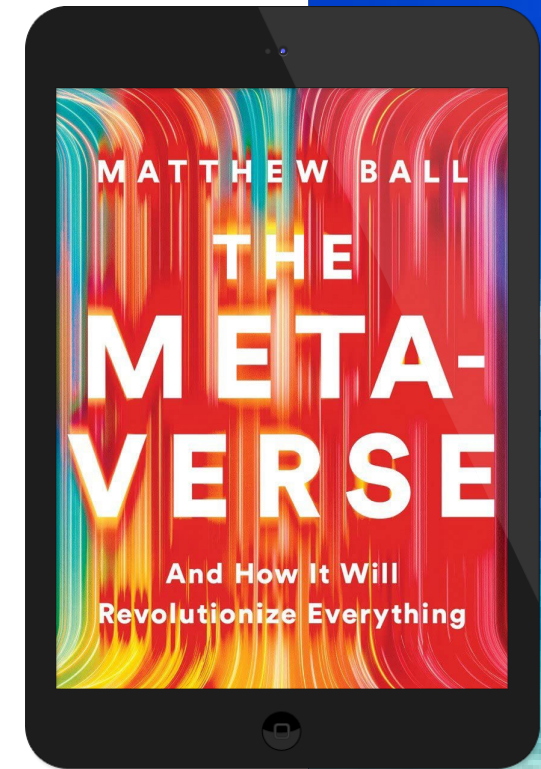
New Products, Services, and Markets

IMAGINE IF... METAVERSE

Healthcare is local, but technology is global.

“**Technology frequently produces surprises that no one predicts. But the biggest and most fantastical developments are often anticipated decades in advance.”**

“**Metaverse is a persistent and interconnected network of 3D virtual worlds that will eventually serve as the gateway to most online experiences, and also underpin much of the physical world”**



METAVVERSE

The metaverse is the popular term used to describe what many expect to be **the next significant paradigm for how we use digital technologies and networks** to interact and collaborate with others and have virtual experiences of all kinds.

It's **not a single technology or device**, and it's **not a service of any one company**. It's the convergence of several separate technologies, all of which are quickly maturing for mainstream use. Together, those technologies can create the experience of **an immersive, three-dimensional environment in which users interact with their surroundings and other users** as if they are in a shared space.

-Deloitte Primer 2022



IMAGINATION

Stephen Spielberg's 2018
Vision of the METAVVERSE



REALITY

Multiple emerging
technologies connecting
virtual and physical worlds

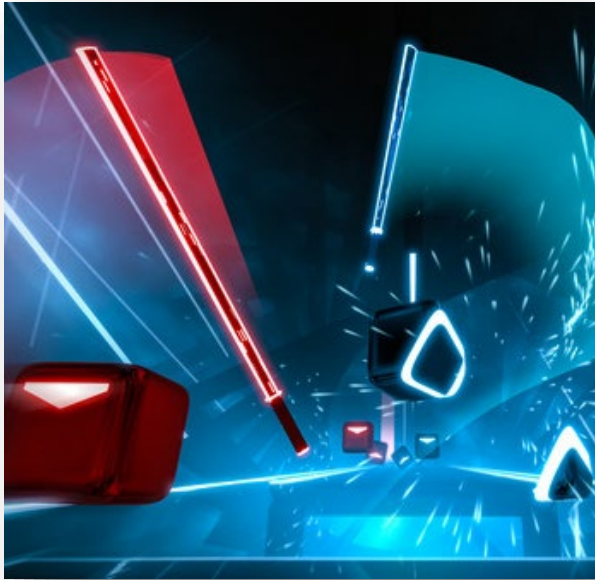


POTENTIAL

Transformative Potential for
Workforce Development

XR

EXTENDED REALITY



VIRTUAL REALITY
...simulated experience
employing near-eye
displays to create an
immersive feel of a virtual
world

1

2

Extended Reality (XR) encompasses Virtual Reality (VR), Augmented Reality, (AR), and Mixed Reality (MR)



AUGMENTED REALITY
...interactive
experiences combining
the real world and
computer-generated
content

1

2



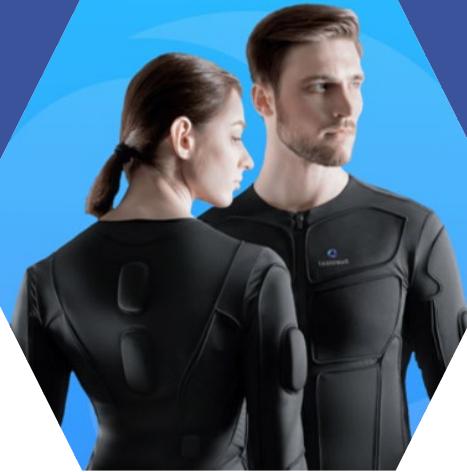
MIXED REALITY
...the merging of a real-
world environment and
a computer-generated
one

1

2

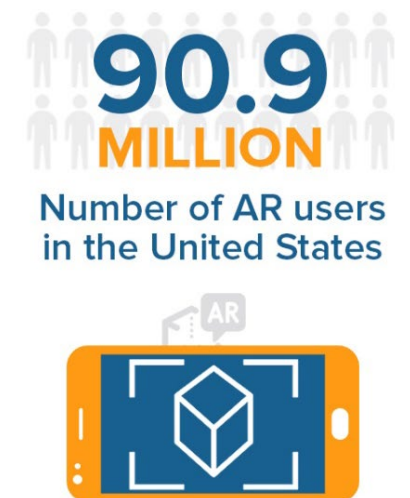
Click the numbers to see examples

ENABLING TECH



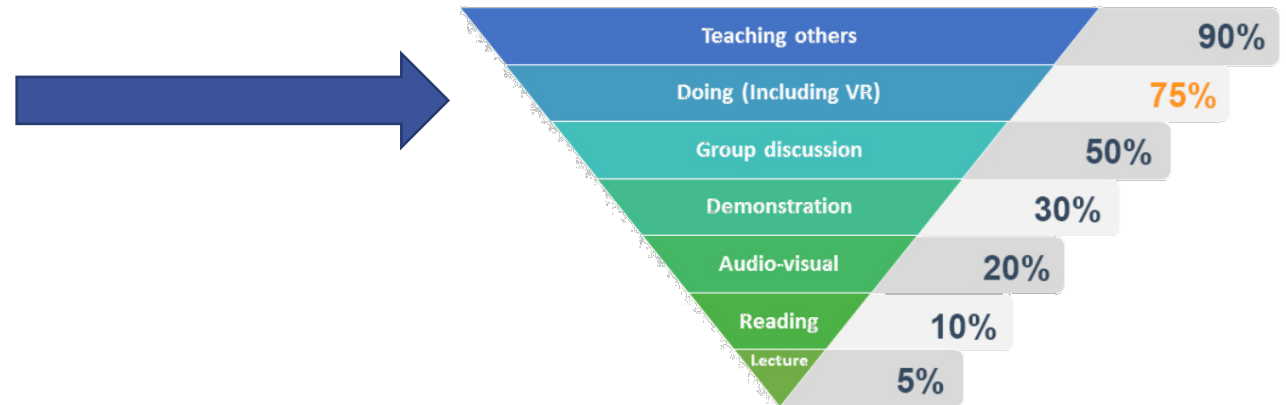
Pervasive and enabling technology

- Reduced costs for students
- Future Proofing
- Obliterating Boundaries



Virtual Reality

WHAT BIG DATA INDICATES



Greater Retention after 1-year 80%



Improved Performance 230%



Less likely to make a mistake 600%



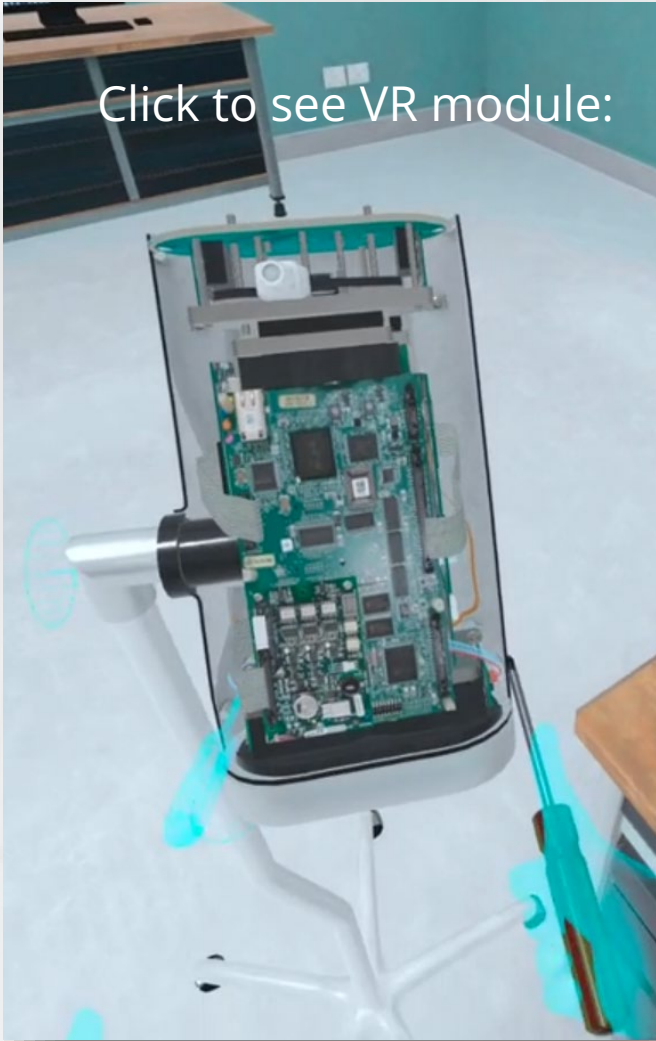
Faster Completion Rates 29%



<https://hbr.org/2019/10/research-how-virtual-reality-can-help-train-surgeons>

<https://trainingindustry.com/articles/learning-technologies/3-ways-virtual-reality-training-is-producing-better-outcomes/>

Click to see VR module:



VR PILOT HTM PROOF OF CONCEPT

100% reported increase confidence

75% significantly increased confidence

100% would recommend VR training

AAMI



Click to learn more

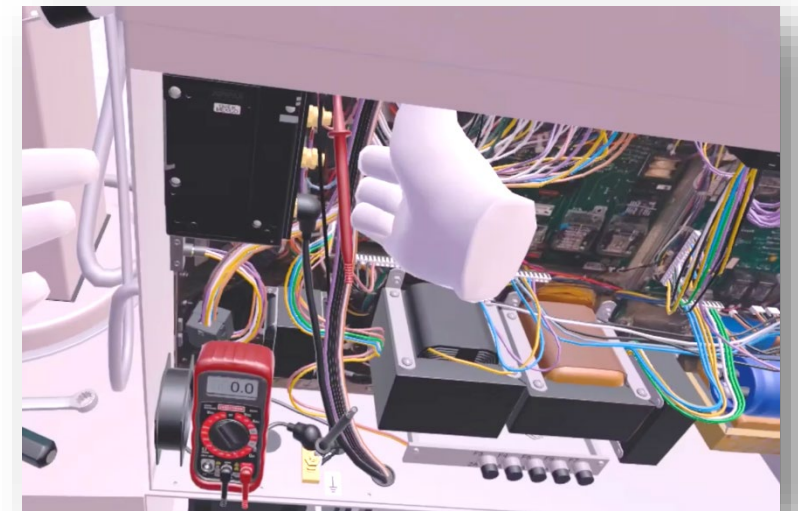
I KNOW KUNGFU

BMET Certificate

- Medical Terminology, A&P
- Mathematics for Electronics
- Electronics I
- Biomedical Equipment I
- Networking Fundamentals I
- Troubleshooting Theory and Methodology
- Test, Measurement, and Diagnostic Equipment (TMDE)
- Professional Career Development

BMET AAS Degree

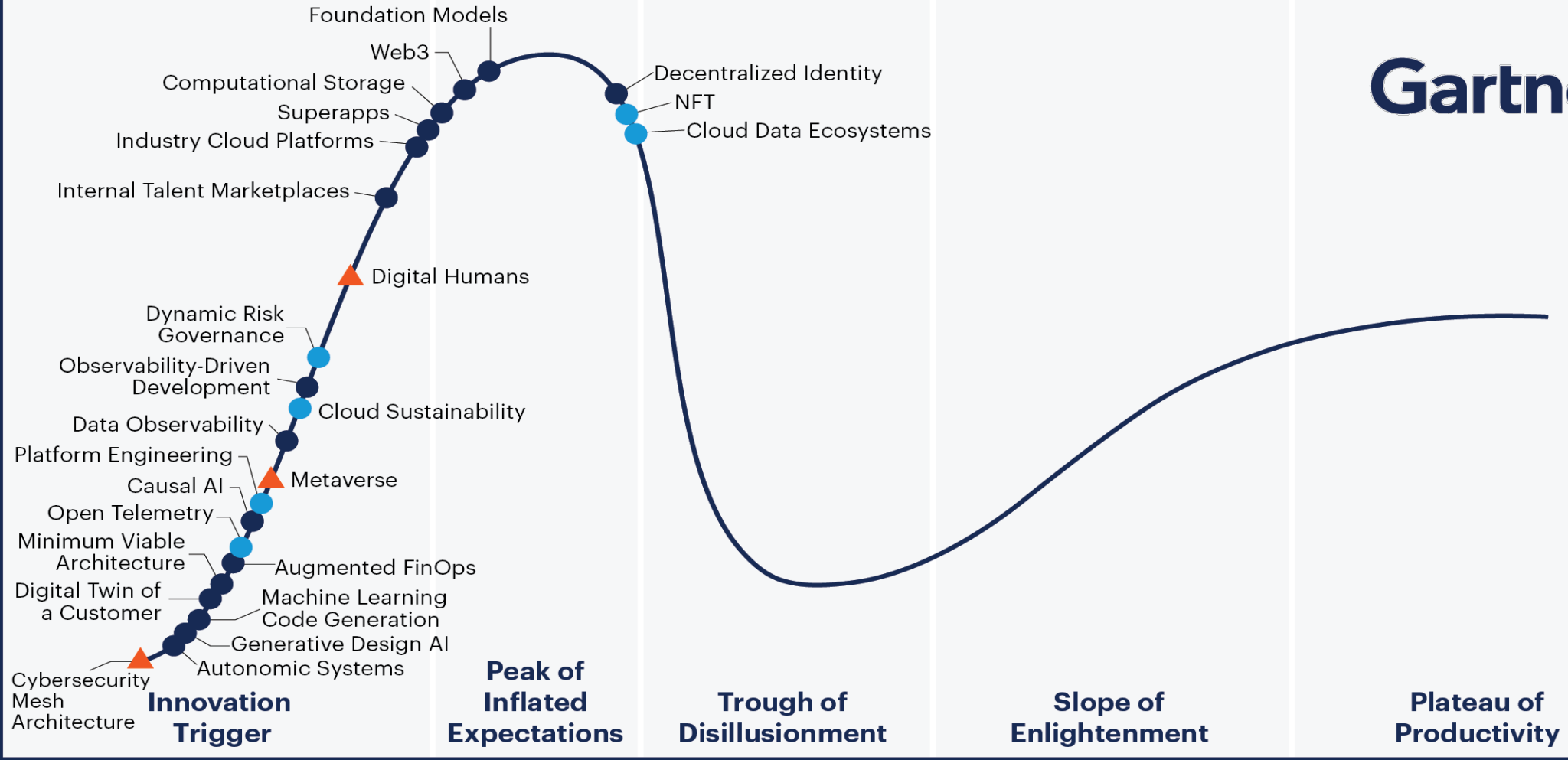
- Business Professional Communications
- Ethics in Healthcare Technology Management
- Technical Writing for Healthcare
- Compliance and Safety
- Healthcare Technology Management I
- Networking Fundamentals II
- Biomedical Equipment II
- Electronics II
- Infection Control
- Basic X-Ray
- Introduction to Clinical Asset Management Systems
- HTM Applications



Hype Cycle for Emerging Tech, 2022

Expectations

Gartner®



OUR PROCESS

Well scoped interaction

- Operator Use
- PM
- CM
- troubleshooting



Teardown documentation

High Fidelity 3D Models



Procedural Storyboard



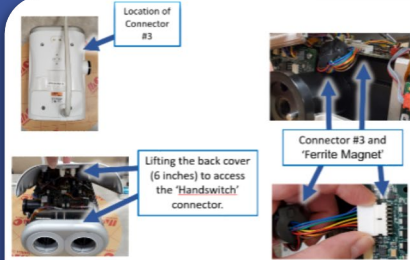
Virtual Environment



Unity 3D Interaction development using SDK



QA & Deployment



Location of Connector #3

Lifting the back cover (6 inches) to access the 'Handswitch' connector.

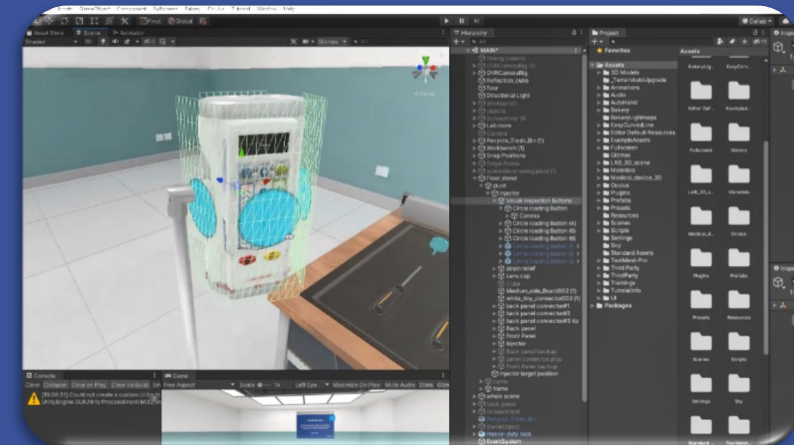
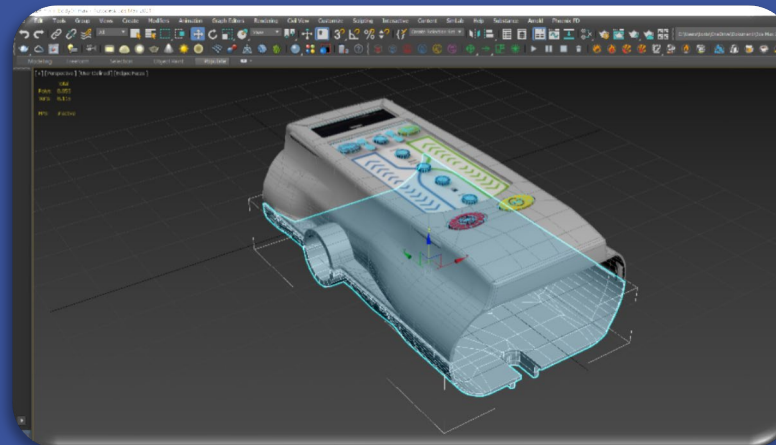
Connector #3 and 'Ferrite Magnet'

Narration [8.6 Disconnect Wire Connector #3]

- **NOTE:** In order to access Connector #3 (Handswitch), you must carefully open the backcover further (approx. 6 inches) until you easily grab the entire connector.
- Once located, disconnect the connector & multi-colored wire set wrapped around the Ferrite Magnet labeled Handswitch . (1st step)
- With all three connections free, place the back cover AND the 'strain relief retainer' on the 'Parts Storage Mat'. (2nd step)

Suggested Objectives

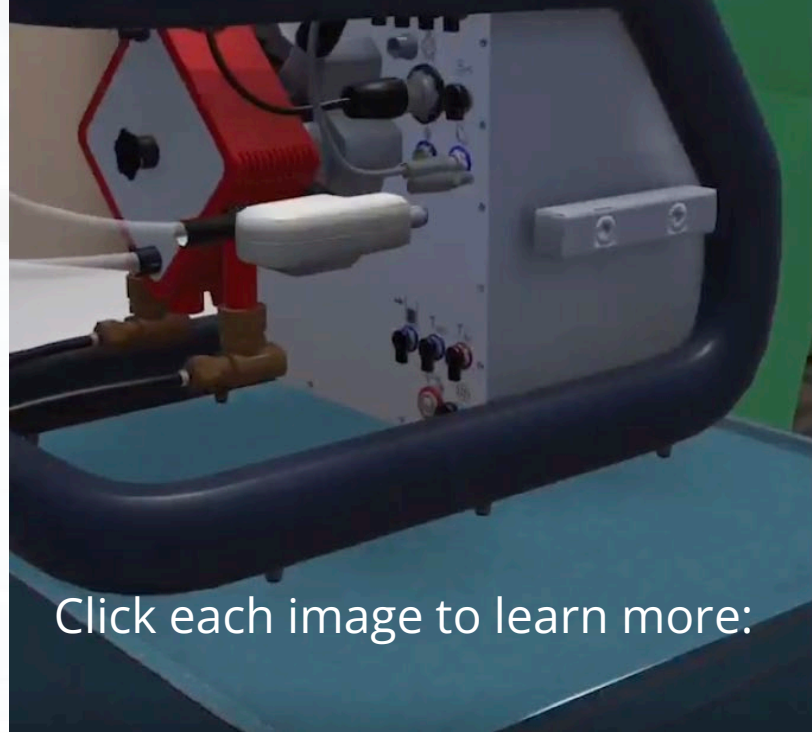
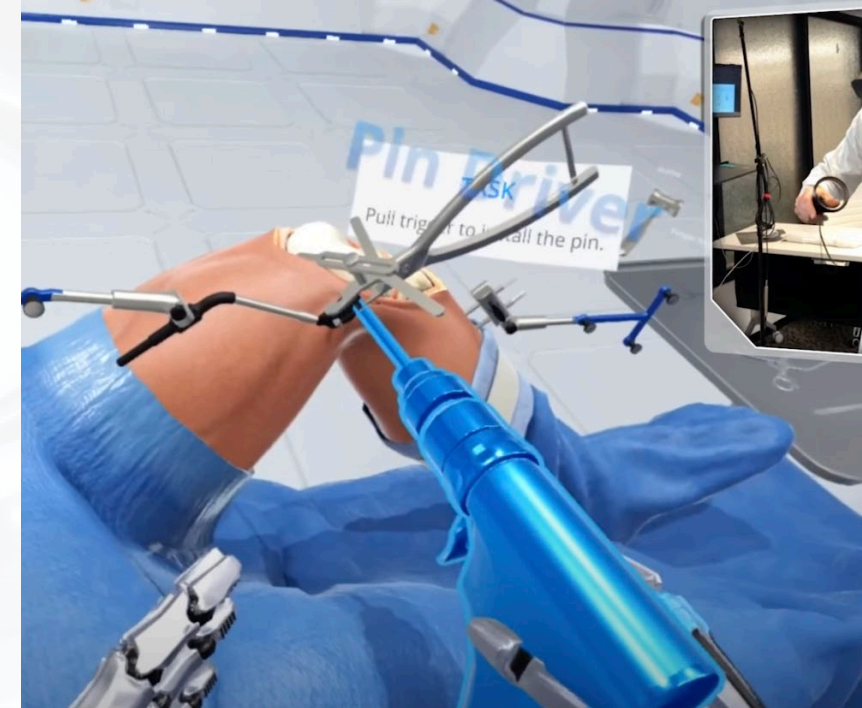
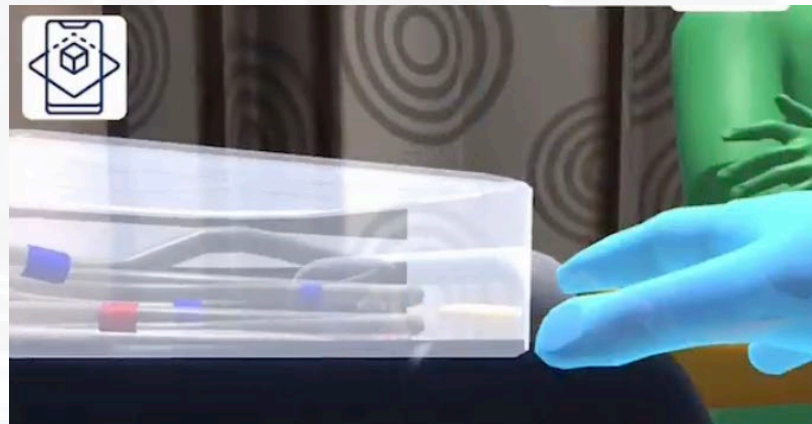
1. Back cover opened to 'Open Position #2'.
2. Disconnected Connector #3.
3. Back cover removed from unit.
4. Strain relief retainer removed from unit.
5. Back cover placed on the 'Parts Storage Mat' on the work bench.
6. Strain relief retainer placed on the 'Parts Storage Mat' on the work bench.



OUR PROCESS



Other Healthcare XR Projects:

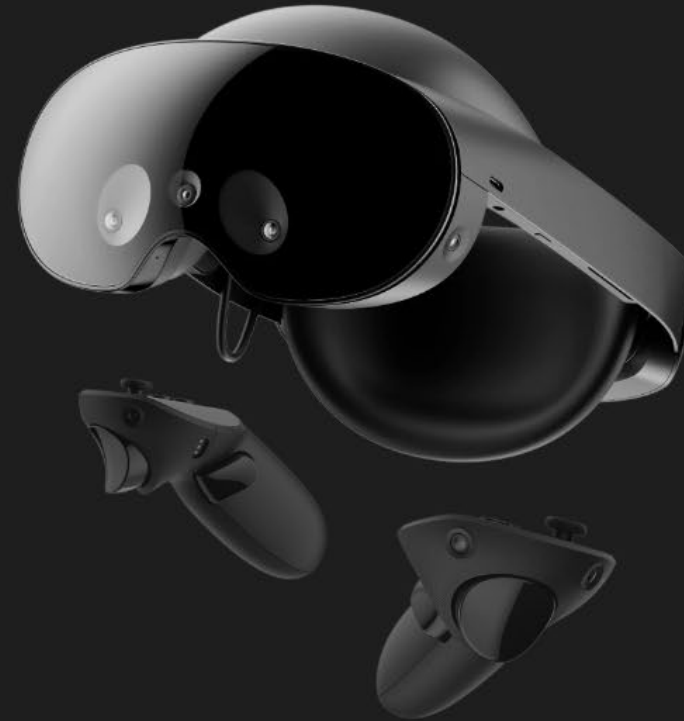


Click each image to learn more:





Experience the
Future of Training.



[SIGN UP](#)



cbet.edu

nvrtilabs.com



Q&A



A list of additional topics and dates for next webinars will be soon announced through email campaign and on our website www.GlobalCEA.org

THANK YOU
for your participation