



DESIGNORI

Better Than Reality

Capitalizing on the capabilities of
360° immersive technology to meet
student learning needs.



Kenai Peninsula College
UNIVERSITY of ALASKA ANCHORAGE



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Dr. Richard L. Webb

Partner,
COO
Designori



Kim Frost, M.Ed / PhD(c)

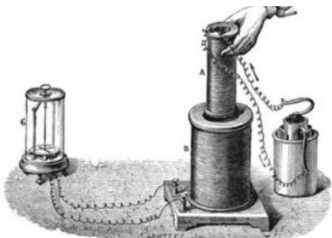
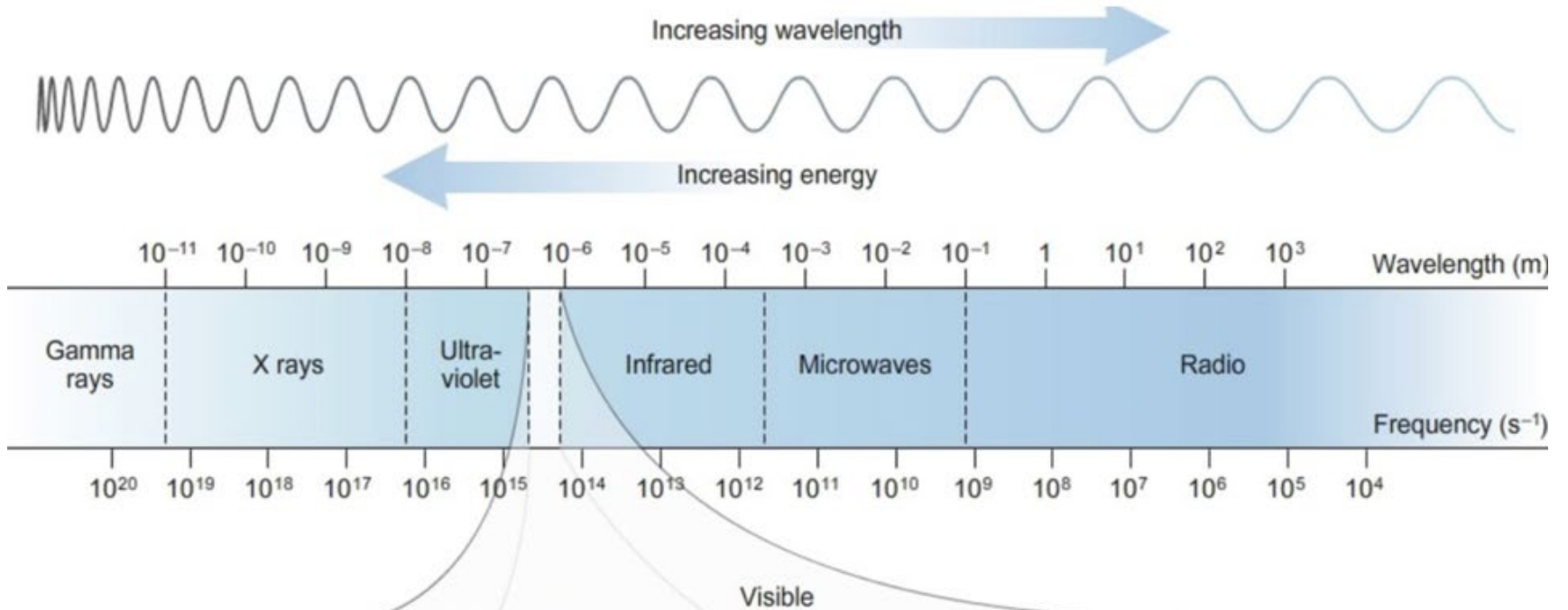
Student and Enrollment Services
Manager/ Kenai Peninsula College



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Presentation Plan

- The Reality Spectrum Argument
- An Emergent Technological Ecosystem
- Experiential Modalities
- Kenai Peninsula College: Process Technology Reality
- Apply Cognitive Apprenticeship Theory
- Debate real world vs. IR
- ?
- ?



$$\mathcal{E} = - \frac{\Delta\Phi_m}{\Delta t}$$

The
REALITY SPECTRUM



**Lived
Reality**

**Captured
Reality**

**Modeled
Reality**

**Played
Reality**

**Learned
Reality**

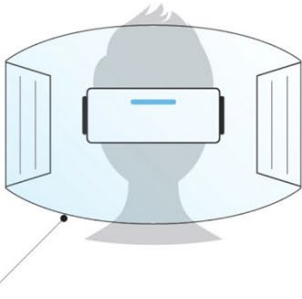
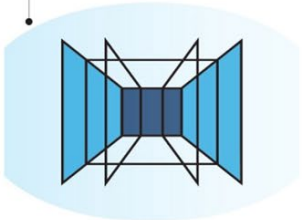


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Experiential Modalities

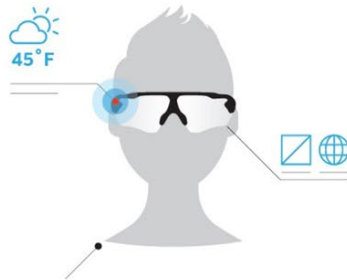
VIRTUAL REALITY (VR)

Completely digital environment



AUGMENTED REALITY (AR)

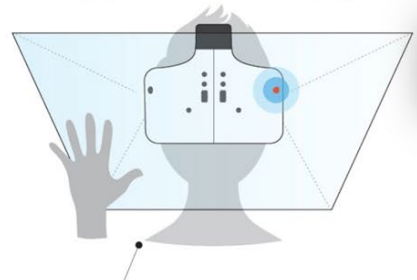
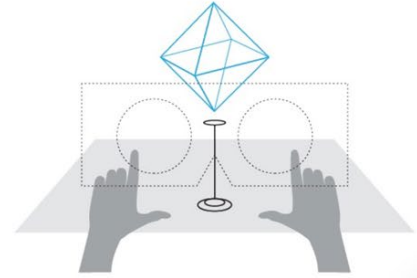
Real world with digital information overlay



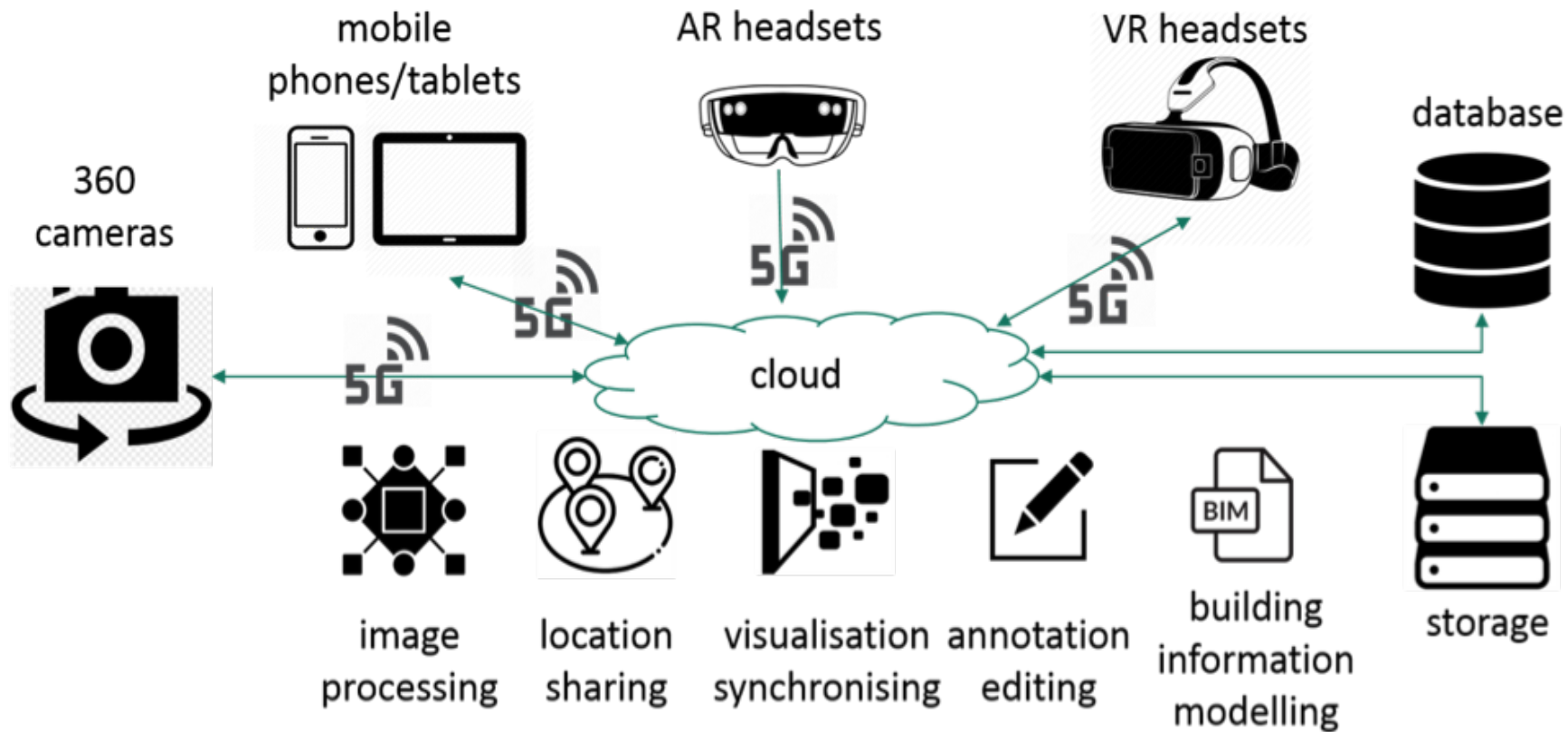
Real world remains central

MERGED REALITY (MR)

Real and the virtual are intertwined



Interaction with and manipulation





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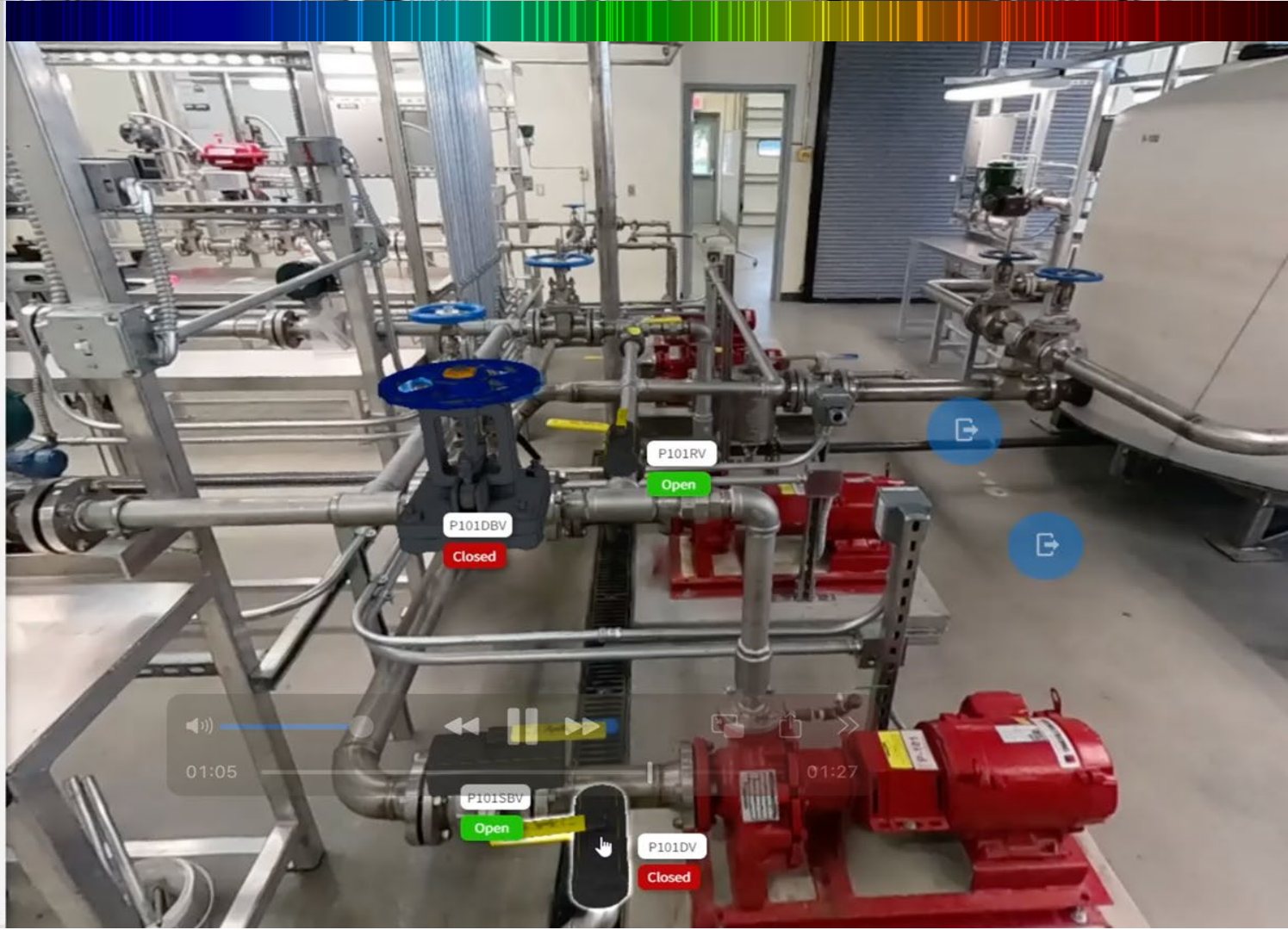
BIG SILVER

Objectives

- 4 - Shut drain valve
- 5 - Open suction block valve
- 6 - Shut discharge block valve
- 7 - Open Recycle Valve
- 8 - Shut P-101 Breaker at MCC
- 9 - Set VFD to minimum speed of 30 Hz
- 10 - Start P-101 in Hand
- 12 - Shut bleed valve
- 13 - Open upstream block valve
- 14 - Open downstream block valve
- 15 - Shut bypass valve
- 21 - Open upstream block valve
- 26 - Open downstream block valve
- 27 - Verify selector switch for LV-102 control is in the "LT-102 Electronic" position
- 31 - Verify selector switch for LV-112 control is in the "LT-112 Electronic" position
- 34 - Open discharge block valve
- 35 - Shut recycle block valve
- 36 - Increase speed of P-101 at MCC to normal (60 Hz)

Stations







0991
0992
0994
0995
0999
1000
1001
1002
1003





PT421

Yokogawa
Model EJX530A

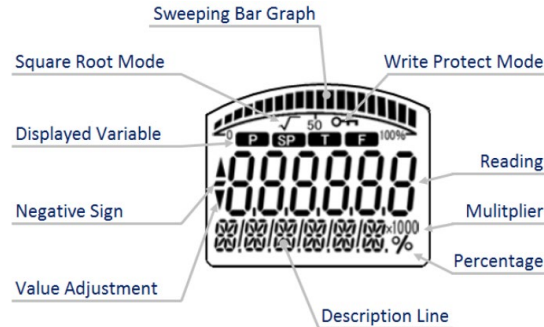
-  [Customer Portal](#)
-  [Brochures](#)
-  [Instruction Manuals](#)
-  [General Specifications](#)
-  [2D/3D Configurator](#)
-  [Technical Support](#)



The EJA530A is a high-performance gauge pressure transmitter used to measure liquid, gas, or steam pressure. Featuring Yokogawa DPharp sensor technology, the EJA530A delivers measurements accurately, quickly, and reliably.

EJA-A series models in their standard configuration, with the exception of the Fieldbus and PROFIBUS types, are certified as complying with SIL 2 safety requirements.

- **Accuracy:** $\pm 0.04\%$ of Span
- **Response Time:** 90 msec
- **Stability:** $\pm 0.1\%$ of URL per 15 years



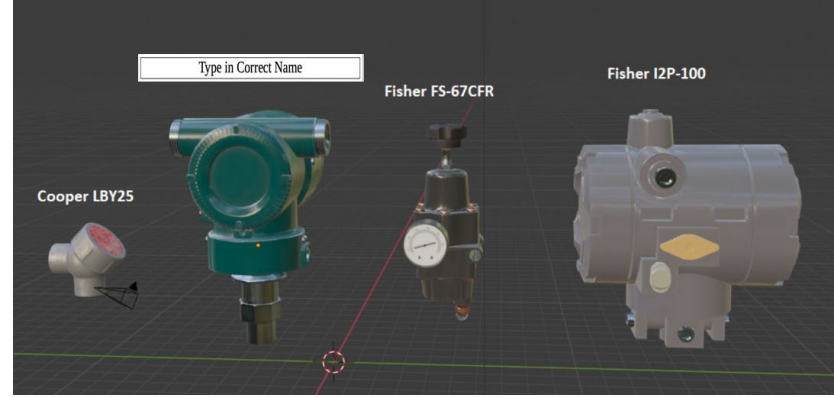
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Text-Based
Responses / Answers / Questions





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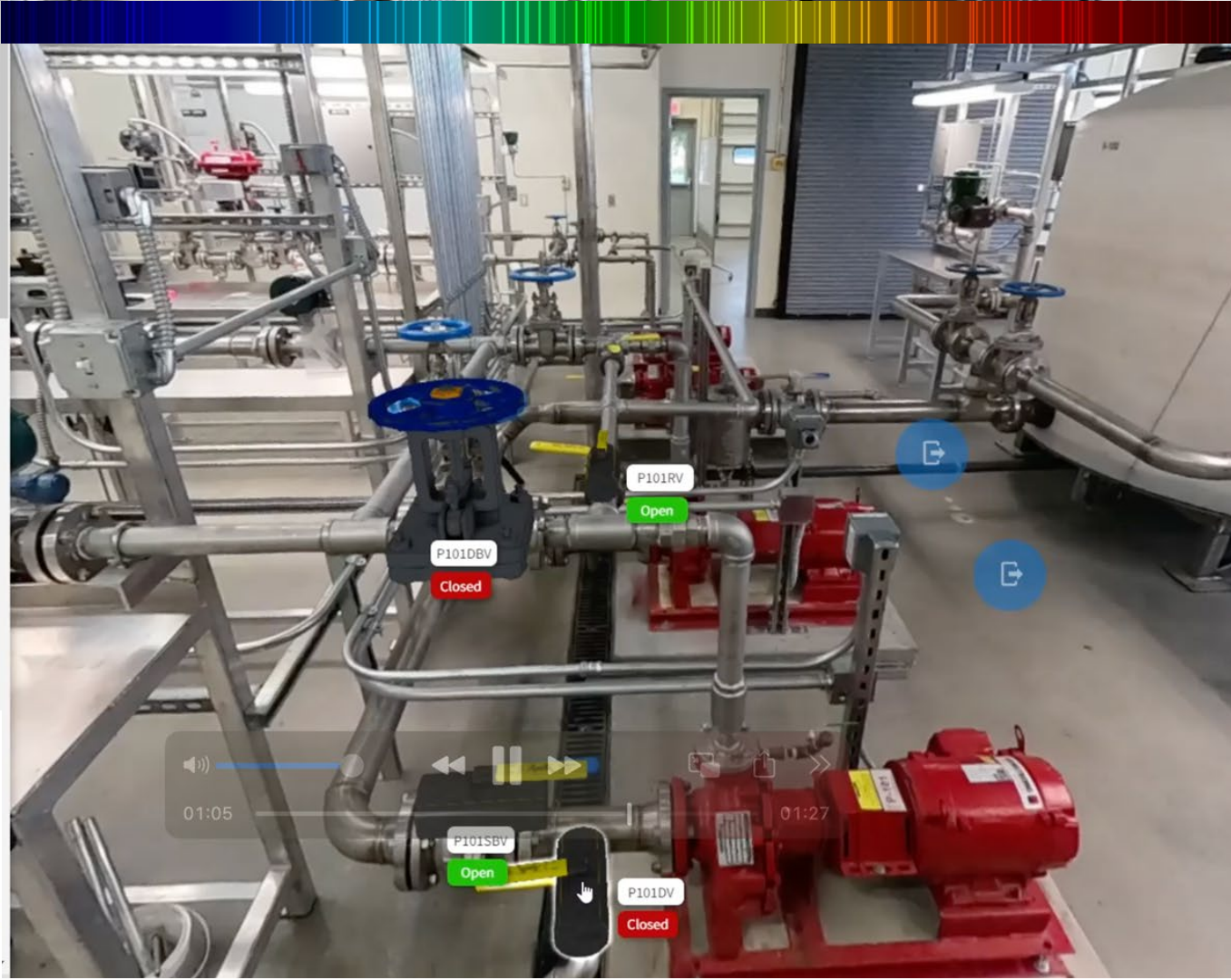
Objectives

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Stations

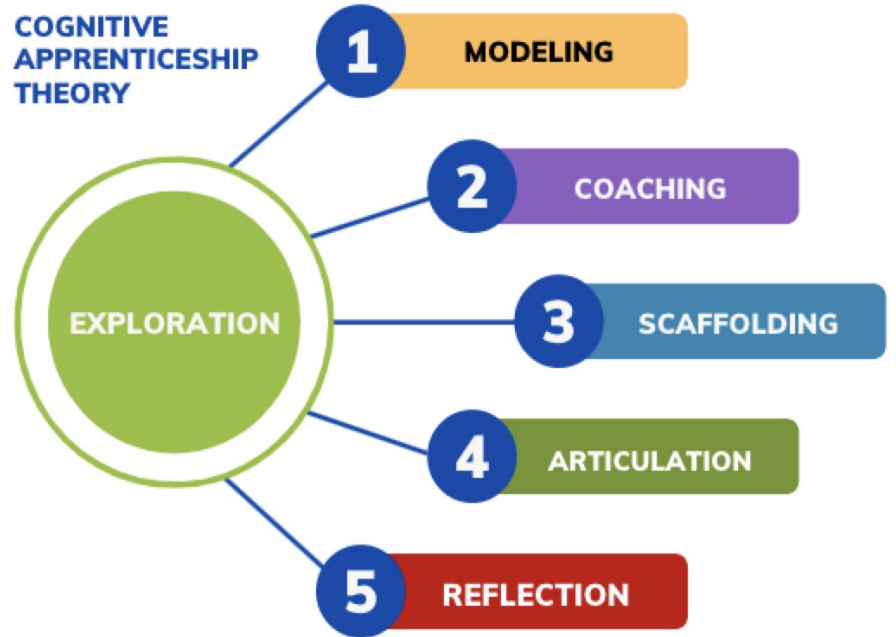


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**COGNITIVE
APPRENTICESHIP
THEORY**



Designing for personas



1

MODELING

Modeling
appropriate radio
communication.



2

COACHING

3

SCAFFOLDING

Start V301 in Recycle

HINT

Is there instrument air availability?



THINK FIRST

**There are 3 questions
you need to answer in
order to start this
pump in recycle.**

HINT

HINT

3

SCAFFOLDING



4

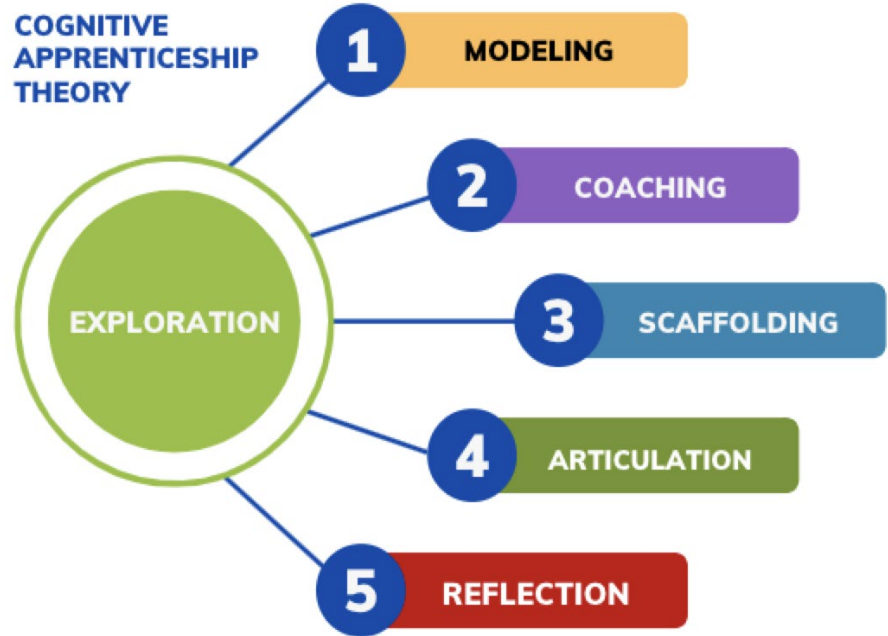
ARTICULATION

5

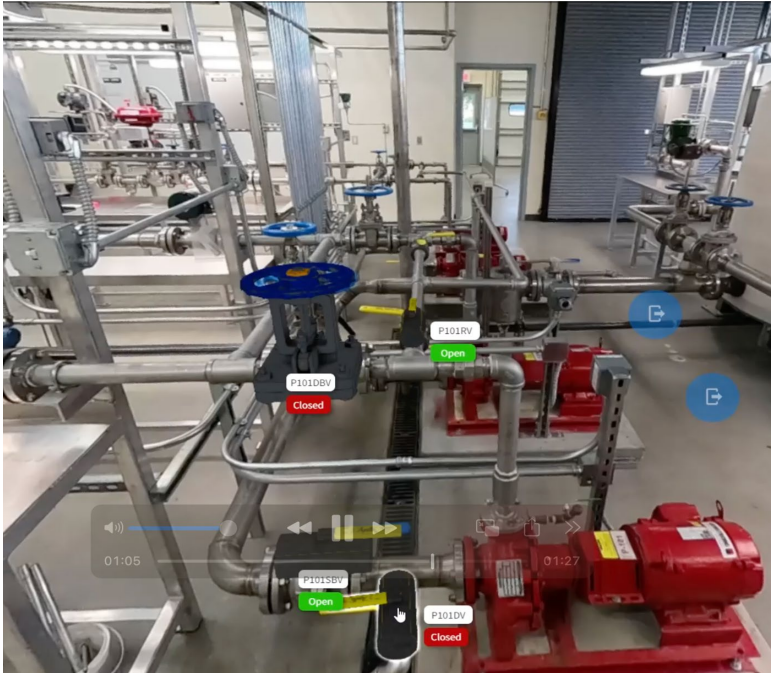
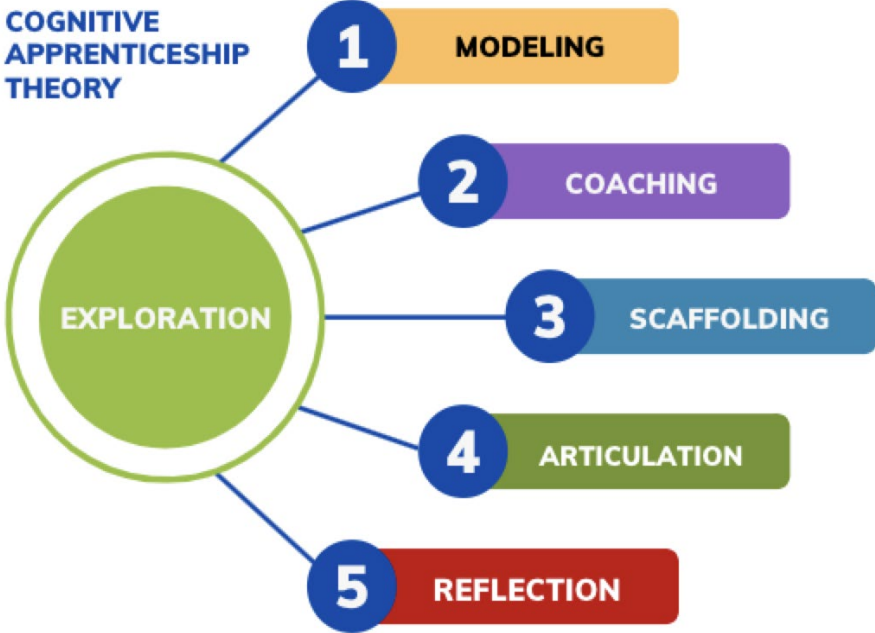
REFLECTION



Sandboxing



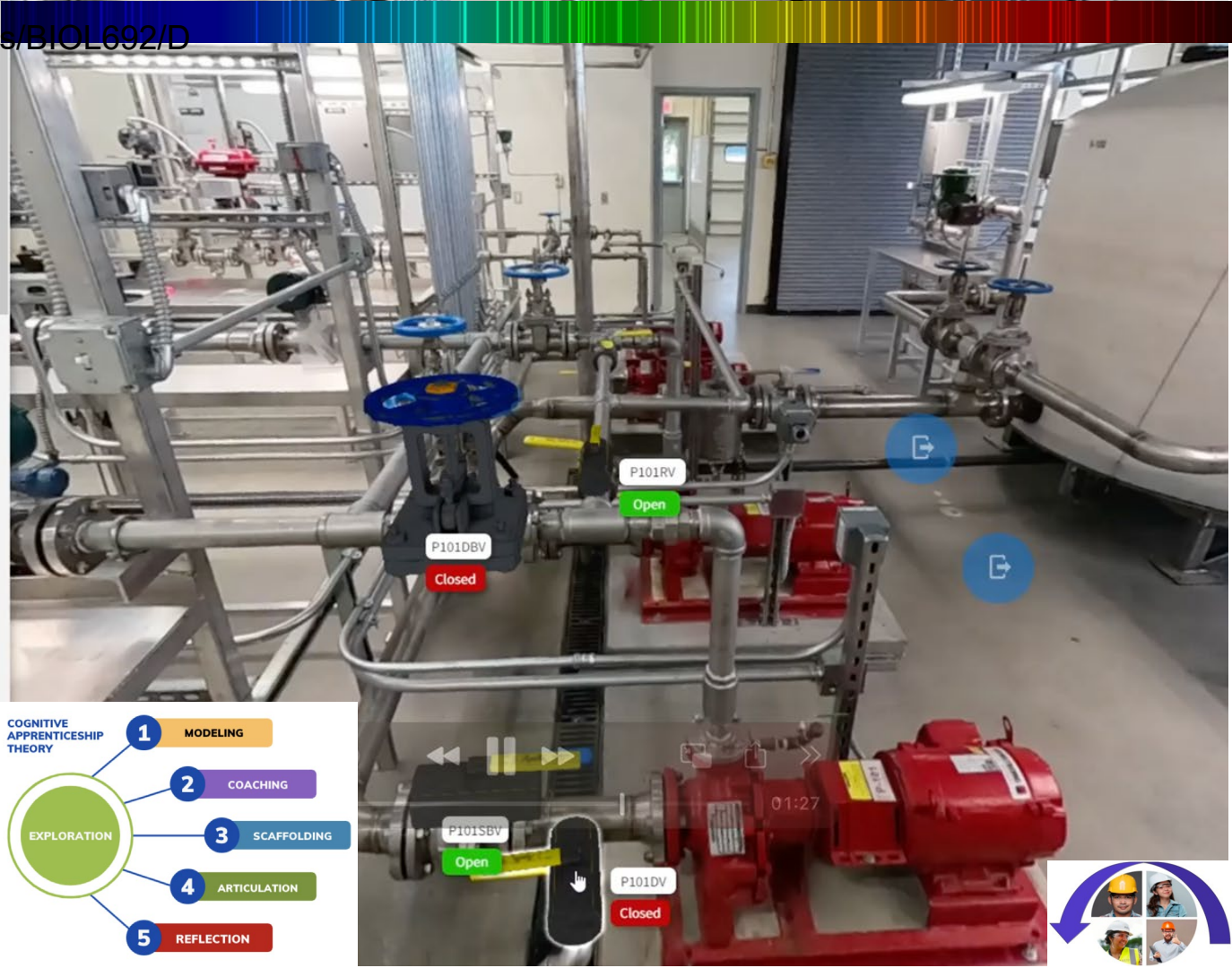
Equal or Better?



uckling

- 5 - Close suction block valve
- 6 - Shut discharge block valve
- 7 - Open Recycle Valve
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