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Project Statement

The Center for Immersive Learning and Digital Innovation (CILDI) focuses on transforming patient safety and healthcare outcomes using advanced technology.

Our goal was to create remote access capabilities for the Alaris PC unit and pump modules

Accomplishing this goal will increase efficiency within the hospital workflow while also reducing the risk of central line-associated bloodstream infections (CLABSI).

Improving Remote Access Capabilities



What We Did

- Determined the internal routing and pin connection of each button on the BD Alaris PCU
- Made a Graphic User Interface (GUI) to mimic the buttons of the BD Alaris PCU

Future Considerations

- Get a working PC unit (new or fix the existing pump)
- Retrieve the correct header for the PCU
- Acquire the pin readings to the Pi
- Update code accordingly to incorporate pin readings



Advantages & Disadvantages

- Can access the pump from a location outside of the Intensive Care Unit (ICU)
 - With a working pump, this is a huge advantage for the hospital staff by eliminating the need to gown up to change a simple flow speed, drug selection, or patient information
- Cybersecurity concerns will always be an issue

Safety Considerations

- ✓ Patient confidentiality
 - ✓ Patient safety
 - ✓ Cybersecurity
- ✓ Staff usability/errors

