

FIELDAQ Repository Analysis Report

Analysis Date: October 9, 2025

Scope: Four FIELDAQ repositories — complete relationship mapping and development timeline analysis

Summary

Analysis of four FIELDAQ repositories (2019–2024) reveals the evolution of an academic research platform through collaborative development across multiple teams. Capstone is the same repository of the original. Simply a continuation of it. Clemson and Pearl are connected to the same repository but are different branches. They both stem from a manually created version of the original.

Repository Overview

1. Original BYU / Capstone FIELDAQ Repository

- Timeline: May 2019 – Aug 2021 → *[2-year gap]* → Aug 2023 – Present
- Commits: 306 (original) → 349 (with continuation)
- Status: Same repository, continued development
- Key Evolution: Integrated Pearl improvements in Aug 2023, added electronics work

2. ClemDarling FIELDAQ Repository

- Timeline: March 2021 – September 2022
- Commits: 294 (independent git history)
Purpose: Experimental fork with height sensors, camera features, barcode scanning
- Relationship: Manual copy of original code, no git connection to Capstone but connected to Pearl Repository
- Is the current working version in the DARLINGS and the most robust so far
- Has numerous changes without commits

3. Pearl-Rwauya FIELDAQ Repository

- Timeline: April 2022 – September 2022
Commits: 37 (Independent git history)
- Purpose: Production refinements and UI improvements
- Relationship: Contains all the changes that were committed to the Clemson version, but not the changes that weren't committed. Additional changes were added, and then some of the work was included in the Capstone version

Key Timeline

- 2019–2021: Original BYU development (306 commits)
- Aug 2021: Development goes dormant
- 2021–2022: ClemDarling creates independent experimental fork
- 2022: Pearl-Rwauya refines ClemDarling's work, but not the uncommitted changes
- Aug 14, 2023: Original repository resumes as "Capstone"
- Aug 18, 2023: Pearl's Granusoft improvements integrated

FIELDQAQ REPOSITORY RELATIONSHIPS

