

Industrial Plumbing — Water-Leak Quantum Simulation

November 3, 2026

Planned research: compare simulations using real quantum computing hardware and classical computing systems, then evaluate results against measured physical construction applications. No such hardware benchmarking or field validation is claimed as completed.

TRIDENT BUILD

Tampa, Florida, USA | contact@keithlouis.net

https://trident-build.com

TRIDENT BUILD · PUBLIC RESEARCH SUMMARY

Industrial Plumbing: Water-Leak Quantum Simulation

November 3, 2026

Trident Build has completed a computational investigation of industrial plumbing water-leak classification using synthetic data. The research explores how simulated sensor features and quantum-circuit classification could be evaluated in a future automated monitoring workflow.

The pilot preparation includes 80 two-qubit quantum circuits covering 20 test cases and four classification prototypes. These circuits are intended for independent research evaluation.

The simulated quantum-circuit results are being prepared for comparison with results obtained from an actual quantum computer.

Research status and limitations. Results to date are from simulations, not physical quantum hardware. The dataset is synthetic, no real plumbing deployment has been validated, and no quantum advantage or field-ready performance is claimed.