

The Hive Autonomous Platform

A Collaborative Ecosystem for Autonomous Buildings



Built on the **Quantum**TM Digital Twin standard for autonomous systems

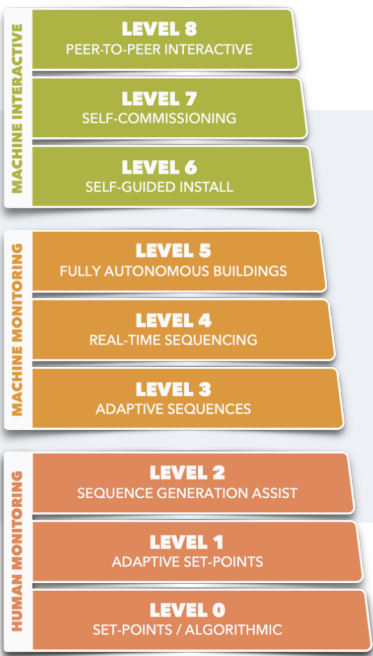


Any Building, Any Scale.

Buildings Reinvented. Complexity at Scale.

A single building can have thousands of IoT devices, sensors, and equipment control points that must cohesively integrate, making them one of the world's most challenging autonomous control problems. Traditional control solutions simply can't keep up with this complexity. And the complexity grows even more at city scale.

Autonomous control enables grid-interactive cities of the future.



Beyond Automation. Truly Intelligent Buildings.

Unlike “smart” buildings, autonomous buildings pilot themselves by assessing possible futures and selecting the optimal control path—creating a new paradigm for how we design, build, operate, and manage buildings. PassiveLogic® was the first to introduce levels of autonomy to our industry and is the only level 5+ autonomous solution available.

Fully autonomous systems will define the next hundred years of automation.



Physics-First Approach. Digital Twins Evolved.

Our Quantum® model is the first physics-based digital twin standard that defines the existential purpose of buildings, equipment, people, and more. Quantum Digital Twins™ answer fundamental questions such as *What is my role?* *What do I do?* and *What am I connected to?* to become the key foundation for enabling fully autonomous systems.

Learn more and join the Quantum Alliance™ at <https://quantumalliance.org>

Unified Building Lifecycle. Powered by Quantum.

Achieving an autonomous building requires a full-stack approach: modular edge-based control hardware, generative design software, and the industry's only complete data standard with embedded AI. PassiveLogic's ecosystem is designed to empower every stakeholder across every phase of the building lifecycle.

PassiveLogic is a truly stand-alone solution for autonomous systems.



Autonomy for Everyone.

Designed for Everyone. Installer's Dream.

The PassiveLogic Hive™ controller is the central hardware platform of our ecosystem. One controller contains a power supply, networking, protocol translation, software-defined I/O, a simple user interface, and more—eliminating hours of panel building. Installers can 10x their productivity with on-screen guided wiring, automatic error detection, and self-commissioning.

PassiveLogic's AI generates control sequences billions of times faster than manual programming.



All Intelligence Onboard. Welcome to the Edge.

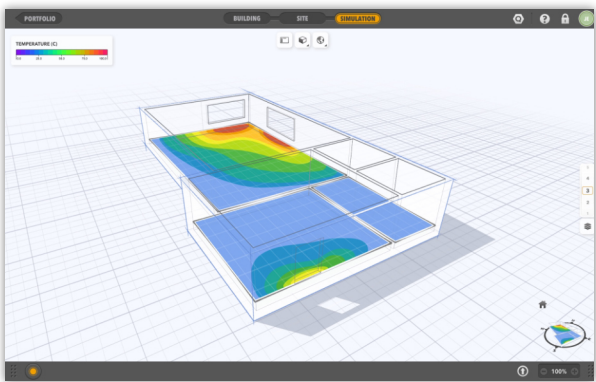
Our PassiveLogic Hive controllers create a distributed, stand-alone supercomputer right in your building that is inherently resilient and redundant—no cloud connection required. The onboard AI engine generates control sequences in real time, predicting building dynamics to optimize energy efficiency, equipment longevity, and occupant comfort.

The past was static, reactive sequences. The future is real-time, predictive model control.

Generative Design. The Superhero for Every Project.

PassiveLogic leverages the Quantum Standard™ to weave generative design elements into every one of our tools, streamlining the design process and empowering anyone to design autonomous systems. Quantum embedded AI handles an array of tasks that allows users to focus on the most creative aspects of design, all while building up a quantitative digital twin behind the scenes that validates design intent.

Quantum Digital Twins™ empower anyone to create autonomous systems.



Customizable Workflow. Drag-and-Drop Building Autonomy.

Buildings are complicated. But making them autonomous with PassiveLogic is easy. Design a system with simple drag-and-drop software, no programming expertise required. Deploy an auto-generated network topology with a guided digital worksite and software-defined I/O. Then power it up and enjoy improved efficiency and comfort with autopilot operation.

PassiveLogic's ecosystem is like having an entire engineering team in a to-go box.



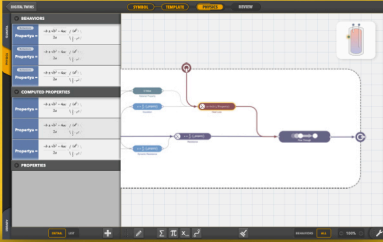
The Tools of Autonomy. Customize Your Workflow.



MANUFACTURE

Quantum Creator™

Build & train digital twin equipment



Quantum Lens™

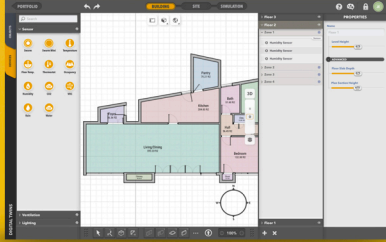
Digital twin scanning & commissioning



DESIGN

PassiveLogic Building Studio™

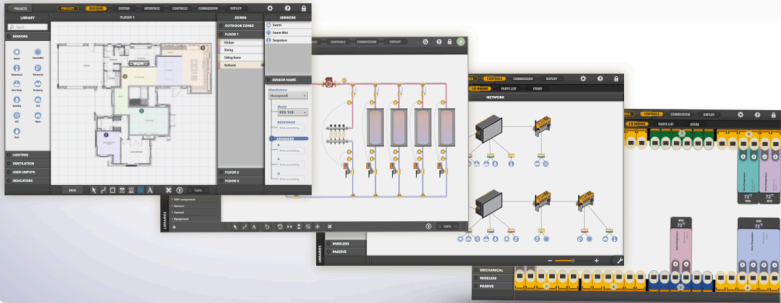
Design & simulate digital twins generatively



INSTALL

PassiveLogic Autonomy Studio™

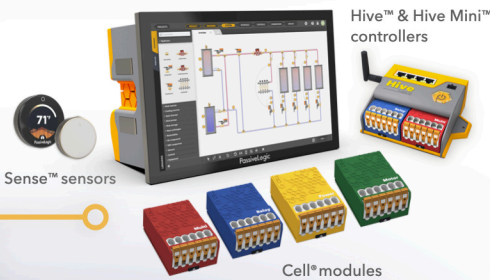
Engineer & build your autonomous systems



ENGINEER

PassiveLogic Hive™ Platform

Deploy your autonomous hardware system



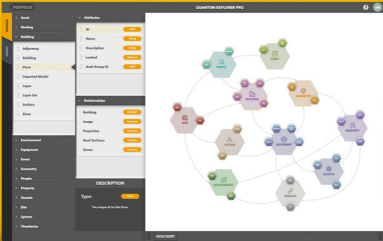
COMMISSION



CONTROL

Quantum Explorer®

Customize autonomy with the Quantum API™



MAINTAIN

Autonomy Live™

Manage your autonomous system



Quantum Passport™

Personalized autonomy



DEVELOP



MANAGE

