PassiveLogic®

Design, Engineer, & Build. **Generate Autonomy.**

PassiveLogic Builder

With the Builder™ app, PassiveLogic® is reinventing how the built environment is designed, engineered, and realized. Together with the PassiveLogic software suite and the open Quantum® Standard, it is now possible to quickly describe a building and its systems as a physics-based digital twin, enabling any building to become fully autonomous. Builder helps you generatively model and engineer HVAC and control systems, visualize network diagrams, generate wiring schematics, and create take offs and BOM (bill of materials) reports. It also eliminates months of programming, commissioning, testing, and user-interface creation, turning these complicated processes into just minutes of work. PassiveLogic is creating the future of building lifecycle management. Buildings are no longer passive structures but are autonomous robots that adapt, learn, and optimize themselves in harmony with both the environment and their occupants.

Design & Engineer. AI from the Ground Up.

Builder enables users to design custom autonomous systems from the outset, seamlessly integrating building design and systems engineering, and allowing modeling of performance with unparalleled accuracy. Unlike other approaches, the same digital twin is used through every phase of the project lifecycle. Model the building by quickly scanning the space with the Lens™ iOS app, tracing or drawing in Designer™, or generating with Qortex™ AI. From there, Builder's drag-and-drop interface makes it easy to assemble systems using prebuilt digital twin equipment libraries. Real physics relationships and connections are generatively added to the model as you snap the systems together visually. Once the building and its systems are defined, Builder auto-generates the interactive network diagram.

Build, Commission, Test. Prepare to Deploy.

When your design is complete, Builder generates a full bill of materials (BOM) and lets you buy everything you need in one click from PassiveLogic's distributor partners, saving hours of parts requisitioning. Builder guides installation of the PassiveLogic Hive™ and provides auto-checking of I/O. The network diagram can be accessed right on the Hive touch screen, letting users drill down to every I/O contact and resolve issues in real time—often without rewiring. Commissioning is automated and made incredibly fast by leveraging the system's Quantum digital twin models. It includes automated documentation, generative testing procedures, and the ability to quickly identify and report any discrepancies between the digital twin and the as-built system. Before deployment, Preflight mode validates everything for confidence at launch. Builder empowers you at each stage and democratizes access to autonomous building control.

PassiveLogic

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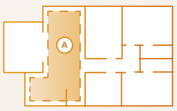
Digital Twin Construction

Environment Mapping

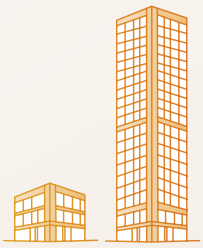
Generative Sensor Placement

Floor Plan Tracing



IOT Location Modeling

Any Building

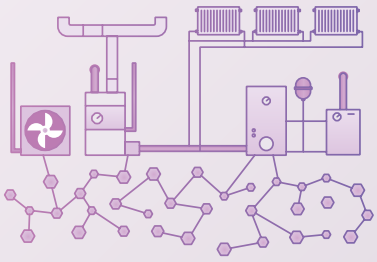


Rapid Project Costing

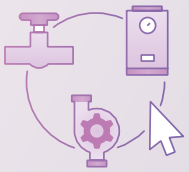
Automatic Commissioning

Fault Detection

AI Digital Twin Generation

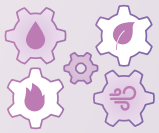


Equipment Selection



System Design

Any System Controls Design



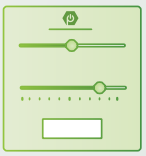
Engineering Analysis

Design Checking

Sensor Mapping Analysis

Self Healing I/O Mapping

Automatic Control System Design



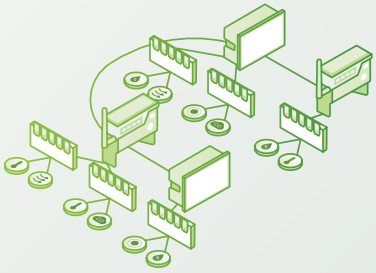
Generative Controls

Wiring Analysis

Automatic Project Takeoffs

Automatic Point Mapping

Generative Network Design



Physics-Driven Commissioning