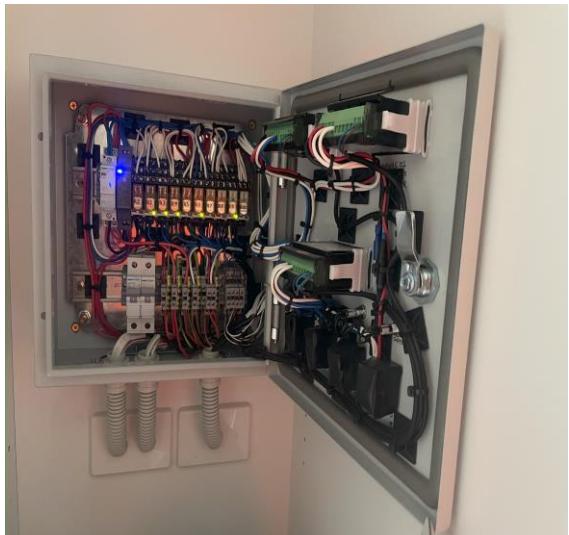




## Customised Heating & Cooling Control Systems

A customized control system for a hydronic heating system is designed to automate, optimise, and zone heating delivery based on user needs, building layout, energy sources, and usage patterns. These systems ensure comfort, efficiency, and cost savings, particularly in complex or large installations.



### Key Features

- Heat source management (e.g. heat pump, boiler, solar, solid fuel boilers).
- Distribution (pumps, valves, buffers).
- Zoning (room-by-room or zone-by-zone control).
- Sensor input (temperature, humidity, occupancy).
- System modes (heating, cooling, off, eco, holiday).

### Considerations

- Divide spaces by usage, occupancy and/or thermal needs.
- Simple scheduling and override features enhance usability.
- Indoor, outdoor and floor temperature sensors for optimized operation.
- Multiple energy sources integration.

### Applications

- Luxury homes with underfloor + radiator + towel rail zones.
- Multi-storey buildings or large homes with different usage zones.
- Off-grid or hybrid energy systems (e.g., solar, biomass, waste heat).
- Commercial or multi-unit dwellings needing centralised control.
- Greenhouses or specialised spaces requiring temperature precision.