The project utilizes open-source tools and libraries in a custom development environment. No pre-built commercial software is required, but the following development tools and libraries are essential:

**Core Development Tools**

* **Python 3.8+** (Backend processing and server)
* **Node.js** (Frontend development)
* **Arduino IDE** (For hardware programming)
* **Git** (Version control)

**Development Environment**

* Code editor (VS Code recommended)
* Web browser (Chrome/Firefox for development)
* Serial terminal (for Arduino debugging)

All components are open-source and available through standard package managers (pip, npm, Arduino Library Manager). No proprietary software licenses are required.