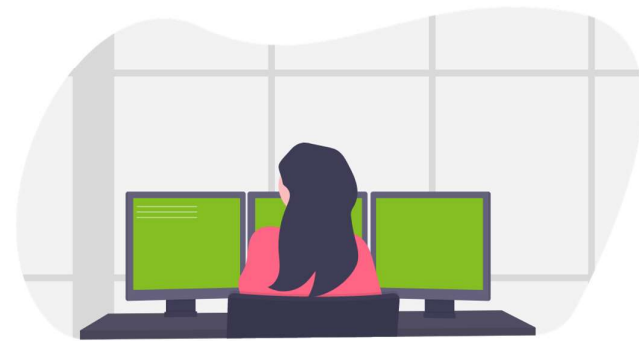
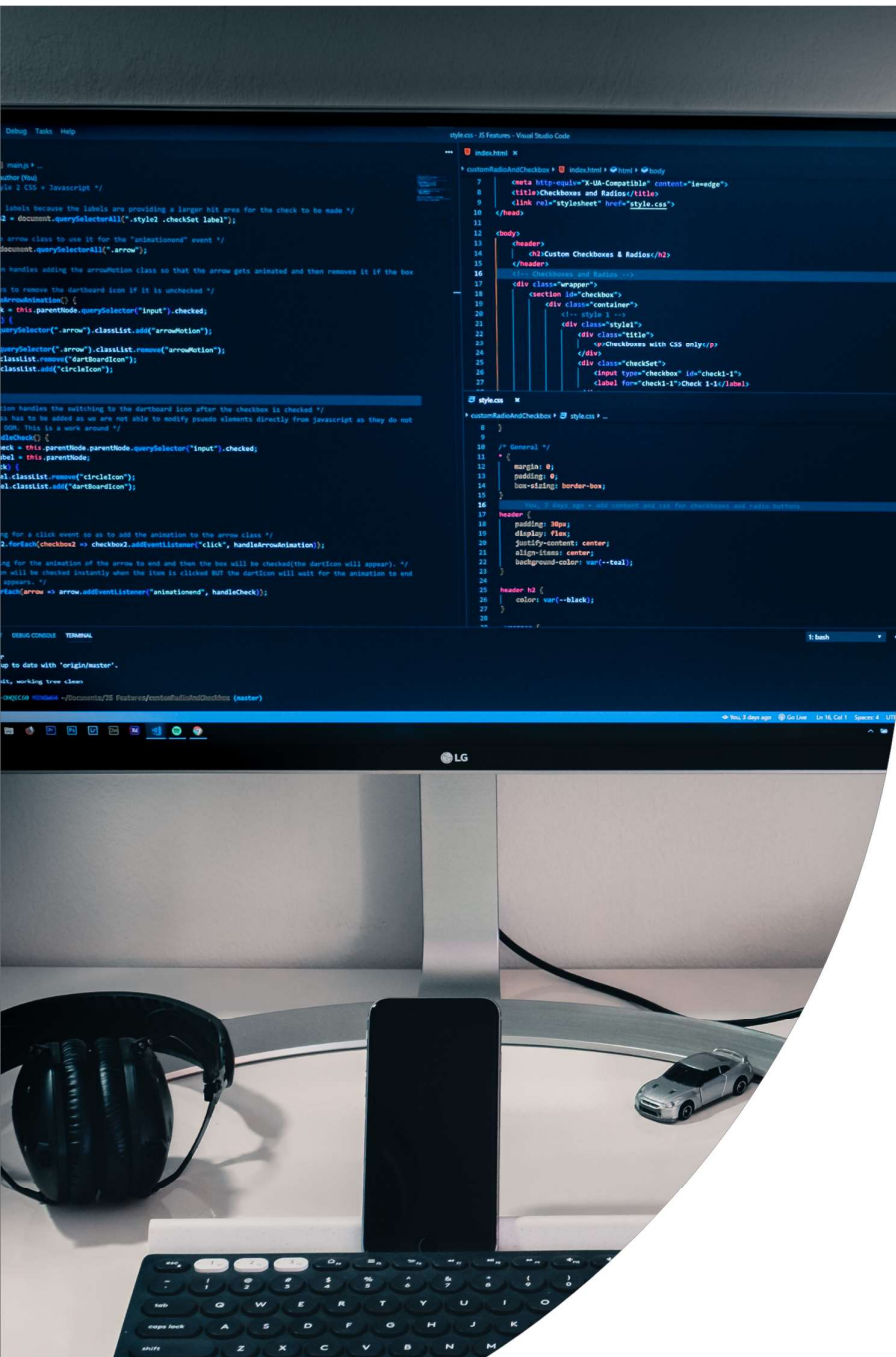


## Software Development Proposal



# Software Development Proposal

**Deloitte.**

# 1. Overview

This proposal outlines the development of a private, real-time dashboard to monitor the operational health of machines in Daikibo's four global manufacturing facilities. The system will display telemetry data for nine devices per factory, updated in real time, and accessible only within the company's intranet. This project will enhance Daikibo's visibility into factory operations and streamline incident response and predictive maintenance.

The primary goal is to enable operations teams to gain immediate visibility into device performance, detect malfunctions proactively, and reduce downtime through rapid response. The dashboard will be integrated with Daikibo's telemetry system to display live device status, and it will support historical status tracking for troubleshooting and analysis.

Access to the dashboard will be **limited to the company's internal network** (intranet) to ensure full data confidentiality and operational security. Authentication will be tied into the organization's **existing internal identity management infrastructure**, allowing employees to log in with their company credentials seamlessly.

The user interface will be designed for simplicity and speed—presenting all devices and their status on a **single-page application**. It will support **expandable/collapsible views** at both the factory and individual device levels, enabling users to drill down into relevant details without navigating across multiple pages.

This system is the first step toward establishing a broader suite of real-time operational tools and supports Daikibo's strategic goals of digital transformation and smart manufacturing

## 1.1 Strategic Value of the Dashboard

Implementing a real-time manufacturing status dashboard aligns with Daikibo's long-term vision of intelligent operations and Industry 4.0 adoption. By centralizing device health metrics across international production sites into a unified interface, the dashboard empowers factory managers, maintenance teams, and operations leadership to make faster, data-driven decisions.

The inclusion of **historical device status tracking** provides not just operational visibility but also serves as a foundation for future predictive maintenance models. This shift from reactive to proactive maintenance can significantly reduce unplanned downtime, optimize resource allocation, and lower the total cost of ownership of industrial equipment.

## 1.2 Technical Design Philosophy

The system will follow a **modular architecture**, separating the concerns of data ingestion, processing, and visualization. The frontend will be built using a modern JavaScript framework (e.g., React or Vue) to ensure high responsiveness and scalability. The backend will interface with Daikibo's existing telemetry feed and authentication server, ensuring seamless integration with minimal disruption to current infrastructure.
















By limiting access to the **internal intranet environment**, the system eliminates external security risks while preserving high performance. The single-page design ensures that all stakeholders—from floor engineers to plant managers—can access and interpret machine health information with minimal training or onboarding.

## 2. Scope

The proposed system will deliver the following features:

- **Secure Intranet-Only Access:** The dashboard will be hosted within the client's private network. External access will be restricted.
- **Authentication Integration:** Access control will be tied to Daikibo's internal authentication system, allowing employees to use their existing company-wide accounts.
- **Device Health Dashboard:** A single-page web interface will display the current operational status ("Healthy", "Unhealthy", etc.) of each machine across the four factories.
- **Hierarchical View:**
  - Users can **expand/collapse each factory** to view machine-level details.
  - Devices can be expanded to reveal **status history** over a selected time window.
- **Real-Time Updates:** Status will be updated in real-time using telemetry data.
- **Responsive UI:** The interface will be built to support desktop displays, ensuring a clean and accessible layout for control room operators and engineers.

Software Development Proposal

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✓  Daikibo Factory Seiko	Last update: <1min ago	◀
✓  Daikibo Berlin	Last update: <1min ago	◀
✗  Daikibo Shenzhen	Last update: <1min ago	▼
✗  CNC	Last update: 2min ago	▼
✗  Status: Unhealthy	2min ago	
✓  Status: Healthy	12min ago	
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✓  LaserCutter	Last update: <1min ago	◀
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✓  ConveyorBelt	Last update: <1min ago	◀
✓  AirWrench	Last update: <1min ago	◀

### 3. Estimate

**Total Estimate: 100 Man-Hours**

Task	Estimated Hours
Requirements Gathering	8
Frontend Development	30
Backend Integration	24
Authentication Setup	10
Testing & QA	16
Deployment & Integration	8
Documentation & Handover	4

## 4. Timeline

The project is estimated to take **3 weeks**, following this schedule:

Week	Milestone
1	Project kickoff, setup, and UI design
2	Backend API integration & UI development
3	Testing, authentication, and deployment

## 5. Support

We offer post-deployment support, which includes:

- **Bug fixes** (high priority: within 24–48 hours)
- **Minor adjustments** (within 2–3 business days)
- **Feature enhancements** (upon request and estimation)
- **Support Ticket System** for structured communication

Our goal is to ensure a stable and reliable product beyond the initial deployment.