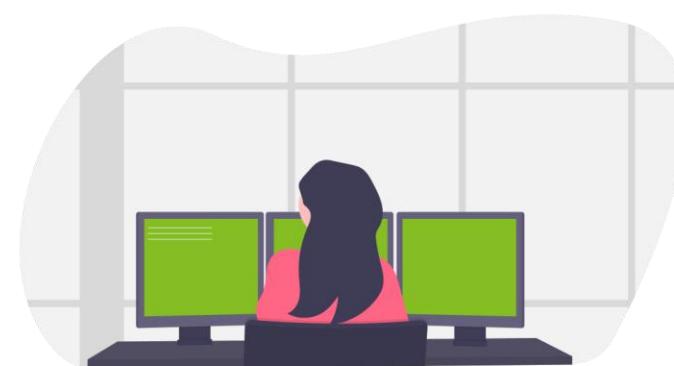


# Software Development Proposal



# Software Development Proposal

## 1. Overview

This proposal outlines the development of a secure, real-time manufacturing status dashboard for Daikibo Corporation.

The system will provide internal stakeholders with a consolidated overview of the health and operational status of the nine monitored machines across each of Daikibo's four factories.

The dashboard will run exclusively on the client's intranet and integrate with the existing internal authentication server, ensuring seamless access using employees' company-wide credentials.

The goal is to enable fast, data-driven decision-making through intuitive visualisation of machine statuses and alerts.

## 2. Scope

The scope of this project includes the end-to-end design, development, testing, and deployment of a real-time dashboard application.

### Key Functionalities

#### 2.1 Dashboard Structure

- A **single-page interface** displaying real-time health status of:
  - **4 factories**
  - **9 machines per factory**
- The core view includes:
  - Machine name
  - Current operational status
  - Temperature / metrics summary
  - Last telemetry timestamp

(These graphical sections correspond to areas demonstrated in the template.)

## 2.2 Navigation & Interaction

- **Factory-level collapsible sections**
  - Expanding a factory shows all machines inside
- **Machine-level expandable panels**
  - Display historical telemetry (last 24 hours / last 50 events)
  - Show status trends, alerts, and past anomalies

## 2.3 Authentication & Security

- Access is **limited to Daikibo's internal intranet**.
- Authentication integrates with the **internal identity server (SSO)**.
- Only authorised employees can view the dashboard.
- No external access, ensuring full data confidentiality.

## 2.4 Real-Time Telemetry Integration

- Dashboard refreshes automatically every **5–10 seconds**.
- Back-end polls the telemetry service or listens to streaming events.
- Implements smart data throttling to avoid network overload.

## 2.5 Alert Indicators

- Machines with warnings or errors appear in **yellow / red**.
- Status overview supports:
  - Healthy
  - Warning
  - Critical
  - No Signal

## Software Development **Proposal**

✓  Daikibo Factory Meijo	Last update: <1min ago	◀
✓  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	
Load More		
✓  LaserCutter	Last update: <1min ago	◀
✓  HeavyDutyDrill	Last update: <1min ago	◀
✓  SpotWelder	Last update: <1min ago	◀
✓  LaserWelder	Last update: <1min ago	◀
✓  MetalPress	Last update: <1min ago	◀
✓  Furnace	Last update: <1min ago	◀
✓  ConveyorBelt	Last update: <1min ago	◀
✓  AirWrench	Last update: <1min ago	◀

### 3. Estimate

The following is the estimated effort required for design, development, testing, and integration.

**Total Estimated Effort: 110–130 man-hours**

Phase	Description	Estimated Hours
<b>Design &amp; Architecture</b>	UI layout, state model, security flow, API design	15–20 hrs
<b>Front-end Development</b>	Dashboard UI, collapsible views, charts, auto-refresh	35–40 hrs
<b>Back-end Development</b>	API layer, authentication integration, telemetry ingestion	25–30 hrs
<b>Testing</b>	Unit tests, integration tests, load tests	15–20 hrs
<b>Deployment &amp; Integration</b>	Intranet deployment, CI/CD setup	10–15 hrs
<b>Documentation</b>	Technical docs, user guide	5 hrs

## 4. Timeline

1. **[14 December 2025]** Design phase begins
2. **[15–20 December 2025]** Architecture finalisation and UI wireframes completed
3. **[21–28 December 2025]** Front-end dashboard development (collapsible views, device status display)
4. **[29 December 2025 – 4 January 2026]** Back-end integration (telemetry APIs, authentication setup)
5. **[5–9 January 2026]** Real-time updates, alerts, and device history implementation
6. **[10–13 January 2026]** Testing (functional, integration, intranet performance)
7. **[14 January 2026]** Deployment on Daikibo intranet
8. **[15 January 2026]** Final review, documentation, and client sign-off

## 5. Support

Post-deployment, Daikibo can rely on continuous support from our team.

**We will provide:**

- Bug fixes and incident response
- Monitoring and performance optimisation
- Enhancements based on user feedback
- Addition of new analytics, machines, or factories
- Long-term maintenance support under an optional SLA

Our focus is to ensure the dashboard remains reliable, accurate, and scalable as Daikibo expands its manufacturing operations.