

# Development Proposal: Real-Time Manufacturing Status Dashboard

## Overview

This document outlines a proposal for the development of a real-time manufacturing status dashboard for Daikibo. This dashboard will provide a centralized view of the health status of the 9 machines in each of Daikibo's 4 factories, enabling proactive monitoring and issue identification. The application will be accessible exclusively within Daikibo's intranet and will utilize their existing authentication system, providing a secure and seamless user experience.

## Scope

The primary function of this project is to create a single-page dashboard that displays the real-time status of all 36 monitored machines across Daikibo's four factories. The key functionalities are:

- **Machine Status:** Each machine's current operational status (e.g., running, idle, error) will be displayed prominently, reflecting real-time telemetry data.
- **Factory/Device Hierarchy:** The dashboard will utilize a collapsible/expandable structure, allowing users to view overall factory status and then drill down to individual machines.
  - Factory level: Displays aggregated status for all machines within a factory.
  - Device level: Shows the detailed status of each machine, including a history of status changes.
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- **Internal Access Only:** The application will be accessible only through Daikibo's intranet, ensuring data security and privacy.
- **Integrated Authentication:** User authentication will be seamlessly integrated with Daikibo's internal authentication server, leveraging existing company accounts.
- **Single-Page Interface:** All functionality will be contained within a single, responsive web page for ease of use and navigation.

## Estimate

The estimated total man-hours for this project are as follows:

- **Development:** 120 hours
  - Frontend Development (Dashboard UI): 60 hours
  - Backend Development (API Integration and Data Handling): 50 hours
  - Authentication Integration: 10 hours
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- **Testing:** 40 hours
  - Unit and Integration Testing: 20 hours
  - User Acceptance Testing: 20 hours
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- **Integration & Deployment:** 20 hours
- **Total Estimated Man-hours:** 180 hours

## Timeline

The project is anticipated to be completed within the following timeline:

- **Phase 1: Project Initiation & Setup (1 Week)**
  - Requirements Finalization and Environment Setup
  - Backend API development and Authentication integration.
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- **Phase 2: Front-end Development (4 Weeks)**
  - Develop the dashboard UI, including status displays and the collapsible/expandable structure.
  - Implement data visualizations.
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- **Phase 3: Testing (2 Weeks)**
  - Rigorous testing of the system, including unit tests, integration tests, and user acceptance tests.
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- **Phase 4: Integration and Deployment (1 Week)**
  - Deployment within Daikibo's intranet and final review
- **Total Estimated Timeline: 8 Weeks**

## **Support**

We are committed to providing ongoing support for the dashboard. This includes:

- Bug fixes and issue resolution as they arise.
- Support through a dedicated support ticket system.
- We will also be available for discussions regarding new functionalities and enhancements that can be integrated to improve the tool over time.

We are confident that this project will provide Daikibo with an effective real-time monitoring solution and are eager to begin work. Please do not hesitate to reach out with any questions or to discuss this proposal further.