



- Dashboard
- Machine
- Product
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# Welcome to Smart Factory AI System

Your intelligent dashboard for real-time factory insights, predictive maintenance, and quality control. Monitor, predict, and optimize with cutting-edge AI.

## Quick Actions



Machine Failure Prediction



Product Inspection



AI Chat Assistant

## System Overview

### Machine Failure Probability



**15%** Failure Probability

Low risk identified, system stable.

### Product Quality Status

Non-Defective

**12,450** Units

All recent products meet quality standards.

### Recent Activity Logs

- 2 mins ago  
Machine #123 cycle completed.
- 15 mins ago  
High temperature detected in Zone 3.
- 30 mins ago  
Product inspection passed for Batch A.



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# Predict Machine Failure

## Sensor Data Input

Air Temperature (°C)

e.g., 30.1

Process Temperature (°C)

e.g., 38.5

Rotational Speed (rpm)

e.g., 1500

Torque (Nm)

e.g., 40

Tool Wear (min)

e.g., 120

Machine Type

Select Type

## Failure Indicators

Tool Wear Failure (TWF)

Heat Dissipation Failure (HDF)

Power Failure (PWF)

Overstrain Failure (OSF)

Random Failures (RNF)

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## Detect Product Defects 🧠

### Upload Product Image

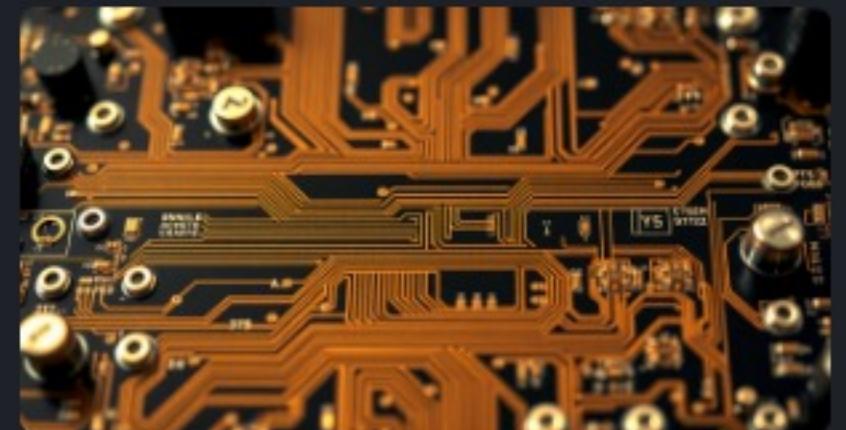


Drag & drop image here

or

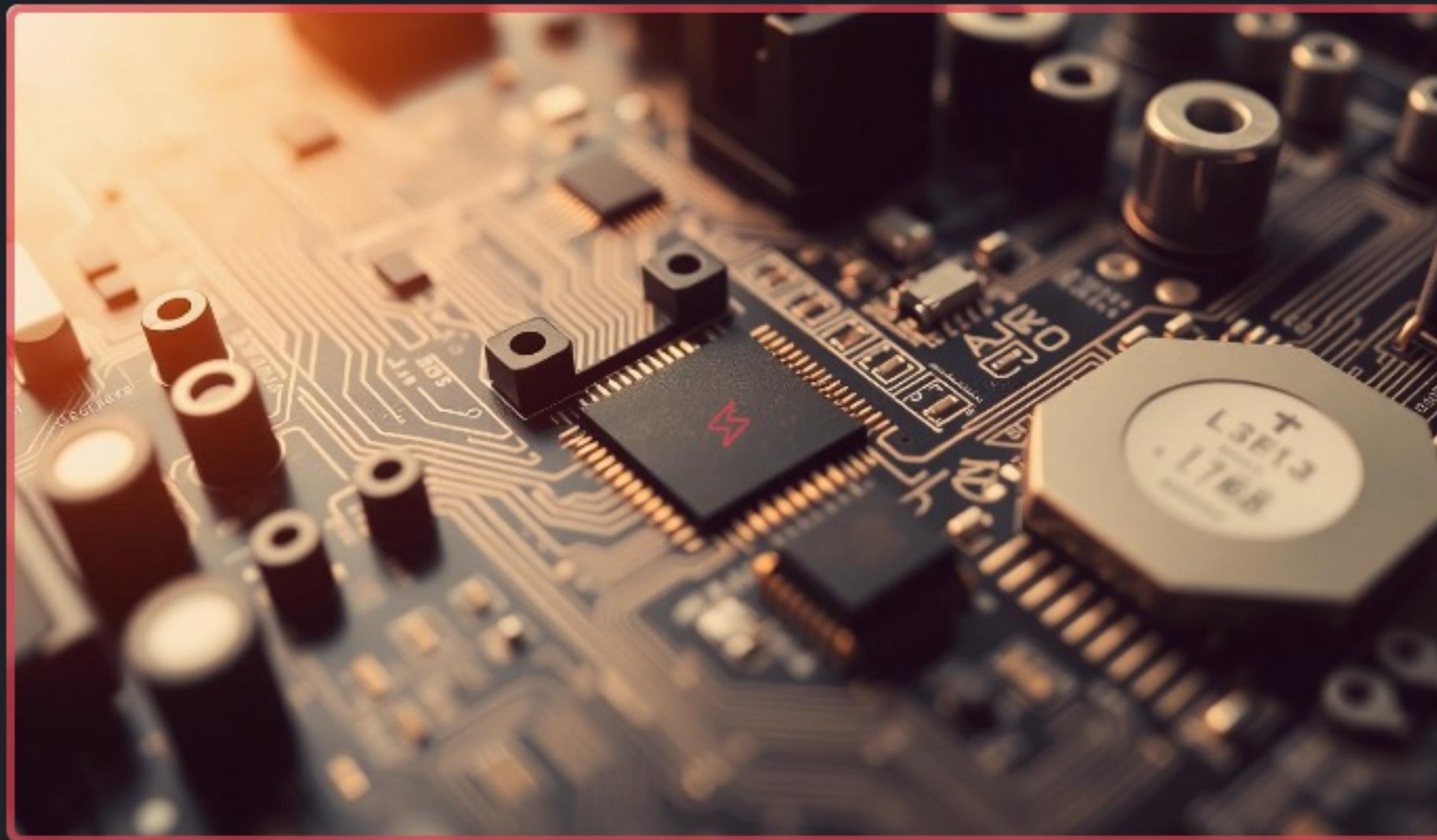
Browse Files

Selected:  
Product\_XYZ\_Batch\_001.png



Predict

### Product Image Preview



### Prediction Summary

Product Status: **Defective**

Confidence Level: **92%**

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## Chat History

[Machine Status](#)  
Show recent uptime[Product Quality Report](#)

Any defects today?

[Performance Summary](#)

Daily overview

[Energy Consumption](#)

Last hour's usage

[Safety Protocols](#)

Emergency shutdown?



## AI Chat Assistant 🤖

How can I assist you with the Smart Factory today?

Hello AI Assistant, can you give me an overview of today's factory performance?

Hello! I'd be happy to. Our factory production is at 98% efficiency today. We have detected 2 minor anomalies in Machine A, but no critical failures are predicted. Product quality remains excellent with a 0.5% defect rate.

What is the machine failure probability for Machine B?

Currently, Machine B has a very low failure probability of 2% based on its sensor data. All parameters are within optimal ranges.

[What is the machine failure probability?](#)

[Is the last product defective?](#)

[Show me today's performance summary.](#)

Type your question...

Send

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# Navigation Structure Overview

This screen demonstrates the global navigation layout for the Smart Factory AI System. It features a full-width header for branding and primary links, alongside a persistent sidebar for consistent navigation across the application. The "Settings" view is currently active.



**Settings Page Content Area**



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## Global Navigation Structure

This page showcases the foundational UI structure for the Smart Factory AI System, including the full-width header and persistent sidebar. These components ensure consistent navigation and access to core features across the application. The design embraces a futuristic industrial tech aesthetic, utilizing deep blue, subtle gradients, and clear accents for an intuitive user experience.



### Dashboard

Access real-time insights and overall factory performance overview.

[Go to Dashboard](#)

### Machine Failure Prediction

Predict potential machine failures using advanced AI analytics.

[Go to Machine Prediction](#)

### Product Inspection

Detect defects in products with AI-powered visual inspection.

[Go to Product Inspection](#)

### AI Chat Assistant

Get instant answers to your factory operation queries.

[Go to AI Chat Assistant](#)

### Settings Overview

Manage application configurations and user preferences.

[Current Page](#)