PROJECT PROPOSAL

Client: Fineweld Systems India Pvt. Ltd.
Prepared by: Turnkey Infotech
Project Scope: Mobile App (iOS & Android) and Web-based Backend Dashboard for Customer Support & Maintenance Management

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1. CLIENT BACKGROUND

Fineweld Systems India Pvt. Ltd., established in 1983, is a technology-driven industrial solutions provider offering a wide range of equipment and automation systems, including:

- Welding Machines, Special Purpose Machines (SPM), and Robotic Welding Automation
- Material Handling Equipment
- CNC Gas, Plasma, and Laser Cutting Machines
- Industrial Cleaning Equipment
- Welding Generators

The company operates across India and has an ambitious plan to begin exporting its solutions. Fineweld is now focusing on digitizing its customer support and on-site maintenance workflows to improve service quality and efficiency.

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2. PROJECT OBJECTIVE

To develop and deploy a secure, scalable, and feature-rich mobile application (for iOS and Android platforms) along with a web-based admin dashboard that enables:

- Product registration and lifecycle tracking
- Automated service and maintenance alerts

- Customer-initiated support ticketing
- Engineer assignment and on-site visit management
- SLA monitoring and compliance
- In-app machine error reporting
- Service history tracking

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3. SYSTEM ARCHITECTURE OVERVIEW

The system will consist of three interconnected components:

1. Customer Mobile App (iOS & Android)

For Fineweld's customers to register products, raise tickets, view service history, and track service timelines.

2. Engineer Mobile App

For Fineweld's on-site technicians to receive job assignments, log diagnostics, update repair logs, and close tickets with confirmation.

3. Admin Dashboard (Web-Based)

For Fineweld's internal teams to manage users, products, tickets, engineers, SLA rules, service history, and reports.

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4. FUNCTIONAL MODULES & DETAILED FEATURES

4.1 CUSTOMER MOBILE APP (iOS & Android)

User Registration and Login

- Secure OTP-based or email/password login

- Role-based access control

Product Registration

- Manual entry of serial number or QR code scanning
- Auto-fetch product details (model, type, purchase date)

Automatic Lifecycle Display

- Auto-population of:
    - Warranty start and end date
    - Scheduled service intervals
    - Maintenance due date alerts

Ticket Creation (Service or Maintenance Request)

- Form-based ticket generation
- Upload photos, videos, and screenshots
- Input of machine error codes/messages
- Category selection (Maintenance / Breakdown / Emergency)

Ticket Tracking

- Real-time status updates
- History of communication and service actions

Notifications and Alerts

- Push notifications for SLA countdowns, technician assignments, service reminders

Service History

- Complete log of registered machines
- Maintenance records and previous tickets per machine

Feedback and Rating

- Feedback form post service completion
- Technician rating

4.2 ENGINEER MOBILE APP

Secure Login

- Assigned credentials for field engineers
- Geo-fencing if required

Job Assignment and Ticket View

- List of pending and accepted jobs
- Ticket details with machine data and issue description

Route Navigation

- Google Maps integration for customer location navigation

Job Execution Interface

- Step-by-step service checklist
- Entry of diagnosis and solution
- Upload photos of repaired machine
- Add parts used during visit

- Capture customer digital signature on job completion

SLA Countdown & Monitoring

- Live SLA timer display
- Escalation prompt in case of non-compliance

4.3 ADMIN DASHBOARD (WEB INTERFACE)

User and Product Management

- Add, view, and manage customer accounts
- View product registrations with details

Product Master Integration

- Upload CSV or API integration for bulk product data
- Map SKUs to warranty policies and service intervals

Ticket Management

- Centralized ticket overview and filters
- Manual or auto assignment to engineer based on:
    - Proximity
    - Workload
    - Specialization

SLA Rule Management

- Define response and resolution timelines per product category

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- Auto-escalation in case of delay

Technician Monitoring

- Track job status
- View location and time logs

Communication Log

- Record of ticket lifecycle: creation, assignment, service, closure

Feedback & Escalation

- Record feedback ratings
- View tickets marked with poor ratings or escalations

Reports and Analytics

- Service performance reports by region, engineer, product
- SLA compliance reports
- Product-wise service demand

Spare Part Logging (Initial Phase)

- Manual logging of used parts during service
- Inventory deduction (if connected with ERP in future)

5. USER ROLES & USE CASES

Customer Use Case

1. Customer logs into mobile app.
2. Registers a new CNC machine using QR code.
3. App displays service and warranty timeline.
4. After 6 months, app notifies for scheduled maintenance.
5. Customer clicks on "Request Service", uploads video of unusual noise.
6. Ticket is created, SLA timer starts.
7. Engineer is assigned and visit is scheduled.
8. Post-visit, customer rates the service.

Customer User Stories:

- As a registered customer, I want to register my newly purchased machine by scanning a QR code so that I can view its service and warranty details instantly.
- As a machine owner, I want to receive maintenance reminders so that I never miss a service interval.
- As a customer facing a technical issue, I want to raise a support ticket with photos/videos of the problem so that support can diagnose it remotely.
- As a customer, I want to track the technician's ETA and service progress so that I can plan my work accordingly.
- As a customer, I want to rate the service provided by the engineer so that I can share my feedback with the company.

Engineer Use Case

1. Engineer receives push notification for assigned job.
2. Logs in and checks ticket details, location, and machine type.

3. Uses Google Maps to reach the customer location.
4. Completes diagnostics and repair.
5. Fills job checklist and uploads photos.
6. Gets customer signature and closes the ticket.

Engineer User Stories:

- As a service engineer, I want to receive job notifications based on my availability and region so that I can efficiently manage my service visits.
- As an engineer, I want to view the issue details, machine type, and customer location before the visit so I can carry the right tools.
- As an engineer, I want navigation support within the app so that I can reach customer locations without delay.
- As an engineer, I want to document service work, attach images, and collect e-signatures so that the job is properly logged and verified.
- As an engineer, I want to be reminded of SLA deadlines so that I don't miss compliance windows.

Admin Use Case

1. Admin logs into the dashboard.
2. Views all tickets filtered by SLA status.
3. Assigns engineer to emergency ticket.
4. Tracks ongoing job location.
5. Generates monthly report for top 10 most serviced machines.

Admin User Stories:

- As an admin, I want to view and manage all support tickets so that customer issues are addressed on time.

- As a support head, I want to assign jobs based on technician availability, skill, and proximity so that the service is fast and efficient.
- As a supervisor, I want to monitor SLA compliance so that escalations can be avoided.
- As an admin, I want to analyze service performance reports by product and region so that I can optimize workforce planning.
- As an admin, I want to upload and manage product data in bulk so that all machine types are service-enabled.

6. SECURITY & COMPLIANCE

- Secure HTTPS data transmission
- Role-based access and permission controls
- Encrypted user data
- Audit logs for all ticket and service actions
- Backup and recovery protocols

7. FUTURE PHASE (PHASE 2) - SPARE PARTS & PRODUCT CATALOG

- Spare part catalog integrated into app and web
- Search by machine model or part number
- Order placement and cart functionality
- Payment gateway integration
- Bulk orders for distributors
- Logistic tracking integration

8. PROJECT TIMELINE

Milestone	Duration	Timeline
Requirement Discovery & Planning	2 Weeks	Month 1, Week 1–2
UI/UX Design & Wireframes	3 Weeks	Month 1, Week 3 – Month 2, Week 1
Mobile App Development (Customer + Engineer)	6 Weeks	Month 2, Week 2 – Month 3, Week 3
Backend Dashboard Development	6 Weeks	Month 3, Week 1 – Month 4, Week 2
Integration & Internal QA	3 Weeks	Month 4, Week 3 – Month 5, Week 1
UAT, Feedback Incorporation & Final QA	2 Weeks	Month 5, Week 2 – 3
Play Store & App Store Deployment	1 Week	Month 5, Week 4
Total Duration	**5 Months**	

10. NEXT STEPS

1. Approval of Proposal
2. UI/UX Walkthrough
3. Project Kickoff Meeting
4. Product Master and SLA Data Sharing
5. Development Begins

Turnkey Infotech is committed to delivering a reliable, user-friendly, and scalable solution to digitize Fineweld's service and support operations, strengthening their brand and enhancing customer satisfaction across India and beyond.

ABOUT TURNKEY INFOTECH

Turnkey Infotech is a full-service digital technology company specializing in web development, mobile applications, e-commerce platforms, digital transformation, and cloud-based business solutions. With over a decade of experience and a strong in-house team of developers, UI/UX experts, and project managers, Turnkey Infotech has successfully delivered cost-effective, scalable, and tailored solutions across multiple sectors.

The company adopts a client-centric approach, emphasizing measurable results, robust technology, and long-term business impact. Our strength lies in understanding complex workflows and converting them into user-friendly, efficient digital products that enhance business productivity and service delivery.

Key Strengths

- Cross-platform mobile app development (iOS & Android)
- CMS-based dynamic websites and ERP-level dashboards
- Custom B2B and B2C e-commerce portals
- CRM, ticketing systems, and lifecycle support management tools
- Integrated admin panels with analytics, reporting, and SLA-based escalation workflows
- Scalable solutions hosted securely on cloud infrastructure
- Digital design with performance-oriented UI/UX strategies

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12. WHY TURNKEY INFOTECH FOR FINEWELD SYSTEMS

Turnkey Infotech offers strategic advantages that align directly with Fineweld Systems' digital transformation goals:

- Strong background in service lifecycle management platforms
- Experience in handling field engineer assignment logic and escalation models
- In-house capacity to develop mobile apps and dashboards that communicate in real time
- Structured project execution methodology with milestones, feedback loops, and phased deliveries
- Focus on SLA-driven support tools, audit trails, and customer support automation
- Capability to scale the platform to future modules including e-commerce, inventory, and multi-location support
- Transparent pricing and long-term maintenance and upgrade capabilities