Jigged - Product Requirements Document

1. Overview

Jigged is an Enterprise Resource Planning tool for small-scale precision manufacturing shops in the United States.

Owner

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Stakeholders

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Summary

Jigged is a web-based operations system for small manufacturing shops that struggle to manage their custom workflows in existing ERP systems. It centralizes work orders, inventory tracking, and shop-floor status into focused consoles, then layers on AI-assisted insights to surface bottlenecks and recommend actions to preserve operational efficiency. Gamified experiences for operators—including performance metrics, streaks, and achievements—encourage consistent data capture and process compliance, so owners get reliable, real-time visibility into their production.

Problem Statement

Small machine shop owners face three core challenges that legacy ERP systems fail to address:

1. **Inflexible Inventory Management**: They cannot easily record material depletion and additions in both granular and bulk measurements (e.g., depleting 3 oz from a 10 lb bar of steel), and they lack clear signals for when items should be reordered before stockouts impact production.

2. **Limited Visibility into Shop-Floor Operations**: They lack an integrated view of work in progress tied to revenue and labor. Owners cannot see which jobs are generating revenue, where bottlenecks exist, or how individual work orders are progressing through stations.

3. **Operator Compliance Gaps**: They struggle to get operators to consistently follow process steps that aren't blocking but are essential for optimization and traceability—such as logging material usage, recording time at stations, or following quality checkpoints.

Today, these shops rely on legacy ERP systems like Tangle and E2 JobBoss, which are rigid, hard to customize, and do not provide flexible inventory handling, restock insights, or intuitive, actionable views of shop-floor status and operator compliance.

Goals and Objectives

Success looks like:

1. **Reduce admin workload by 10+ hours per week** across shop administrative staff within 3 months of adoption

2. **Achieve operator NPS of 50+** within 6 months of deployment

3. **Achieve administrative staff NPS of 50+** within 6 months of deployment

4. **Zero work order delays attributable to untracked inventory stockouts** within 6 months of adoption

5. **Increase operator workflow compliance from 0% to 60%** within 3 months of adoption

6. **Achieve 100% inventory accuracy** (system counts match physical counts) within 3 months of adoption by enabling frictionless granular inventory updates

Out of Scope

1. Integrations with automated factory systems (PLCs, SCADA)

2. Direct machine integrations (CNC program uploads, machine monitoring)

3. Multi-facility/multi-location support (V1 is single-shop focus)

4. Advanced HR/payroll features beyond basic operator tracking

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2. Users and Use Cases

Target Users / Personas

Role	Description	Primary Goals	ERP Needs
Owner	Business owner who oversees all operations, makes strategic decisions.	Maximize revenue, minimize waste, ensure on-time delivery, maintain quality	Dashboard views of work orders, inventory, and revenue. Approve material replenishment. Access business insights and performance metrics.
Operator	Manual machine operators who execute defined steps in work orders to build products. May operate CNC machines, lathes, grinders, or perform assembly work.	Complete jobs efficiently, know what to work on next, understand job requirements	Access work orders and instructions. Log progress at stations. View performance metrics and gamified feedback.
Admin / Shipping Clerk	Administrative staff who handle material receiving, shipping, customer data management, and general office operations.	Keep inventory accurate, ship orders on time, maintain clean data	Receive inbound materials. Generate shipping labels. Track shipment status. Manage customer records.

Role	Description	Primary Goals	ERP Needs
Salesperson	Handles customer relationships, creates quotes, and converts approved quotes into work orders.	Win customer business, ensure quotes become profitable jobs	Create work orders from quotes. Attach customer specs (PDFs, CAD files). View customer history and order status.
Bookkeeper	Manages invoicing, accounts receivable, and financial record-keeping. Often uses QuickBooks for accounting.	Invoice promptly, track payments, keep books accurate	Generate invoices for completed work orders. Track payment status. Export data to QuickBooks.
Quality Checker	Inspects finished products from work orders before shipping.	Ensure products meet specifications, catch defects before shipping	Log inspection results. Annotate rework needs on failed jobs. Approve or reject work order completions.
Engineer	Estimates material requirements for work orders and configures templates. Designs station routing for jobs.	Create accurate estimates, optimize manufacturing flow	Configure work order templates with station routes. Define material requirements by step. Create BOMs.

User Stories

Priority	As a...	I want to...	So that...	Notes / Acceptance hints
Must	Owner	add inventory in both bulk and granular units (e.g., pounds, individual pieces)	I can record material receipts the way I actually receive them	Support multiple units of measurement per material type
Must	Owner	deplete inventory by flexible increments as materials are consumed	inventory reflects actual usage without cumbersome data entry	Link depletion to work order operations
Must	Owner	see clear signals when inventory items should be reordered	I avoid stockouts that delay work orders	Configurable reorder thresholds per item
Must	Owner	approve or reject requested work orders before they go to production	only authorized work enters the shop floor	Status: Requested → Approved
Should	Owner	view a history of all inventory transactions	I can audit discrepancies and understand consumption patterns	Filterable by date, item, user, work order
Should	Owner	see the full status lifecycle of a work	I know exactly where each job stands	Statuses: Requested, Approved, In Progress,

Priority	As a...	I want to...	So that...	Notes / Acceptance hints
		order		Quality Checked, Shipped, Delivered, Invoiced, Complete
Should	Owner	view operator performance metrics including time at stations	I can identify training needs and reward top performers	Operators page with insights
Should	Owner	see highlights about top customers and revenue insights	I can focus on the most valuable relationships	Customer ranking by revenue, order frequency
Should	Owner	see high-level metrics about business performance on a dashboard	I can quickly assess the health of the operation	Insights page with charts, revenue from ongoing work orders
Should	Owner	upload existing inventory and customer data from legacy systems	I can transition without re-entering everything manually	Support migration from Tangle, E2 JobBoss via CSV
Could	Owner	ask natural language questions about business data	I can get answers without building custom reports	LLM-powered prompts and open text field
Could	Owner	create and save custom charts	I can track the metrics that matter most to me	Chart builder with drag-and-drop
Should	Admin	receive inbound material shipments and increment inventory counts	new stock is tracked immediately upon arrival	Inbound Material page functionality
Should	Admin	edit or delete customer records	customer data stays accurate and current	Add new customers via quotes/work orders, not directly
Should	Admin	generate shipping labels and track shipment status	orders ship efficiently and I know when customers receive them	USPS flat rate primary; UPS/FedEx tracking integration
Could	Admin	print QR code identifiers for operators	operators can quickly identify themselves at stations	Personnel management page
Must	Operator	view work order instructions including PDF drawings and CAD files	I have all the information needed to complete the job correctly	Support PDF and CAD file attachments, viewable on mobile

Priority	As a...	I want to...	So that...	Notes / Acceptance hints
Must	Operator	log into a station and identify myself by scanning QR codes	I can quickly associate myself with a station and start work	Station QR + operator PIN or badge scan; mobile-friendly
Must	Operator	assign a work order to my station to begin tracking time	my time and output are tracked against the correct job	Simple numeric entry or barcode scan
Must	Operator	access the system from my personal phone	I don't need dedicated hardware at every station	Mobile-responsive or native app
Should	Operator	see a gamified view of my performance during a shift	I'm motivated to maintain productivity and quality	Show performance metrics, streaks, achievements
Should	Engineer	create work order templates with station routes and material consumption	repeat jobs can be started quickly with consistent estimates	Templates include flowchart of stations, parallel/series flows
Should	Engineer	define material requirements per work order step	operators know what materials to use and inventory depletes accurately	Link materials to specific stations in the routing
Should	Engineer	estimate time per station for work order templates	we can schedule work and measure operator efficiency	Estimated vs. actual time comparison in reporting
Should	Engineer	create and manage bills of materials (BOMs)	I can track all components needed for a product	BOM ties to inventory items with quantities
Could	Engineer	visualize station routing as a flowchart	I can design and communicate manufacturing flows clearly	Drag-and-drop flow builder, support parallel paths
Must	Bookkeeper	generate invoices for completed work orders	customers can be billed promptly	Invoice includes work order details, pricing, customer info; PDF export
Must	Bookkeeper	track which invoices have been paid or are outstanding	I can manage accounts receivable	Invoice status: Draft, Sent, Paid, Overdue; aging report
Should	Bookkeeper	sync invoices and customer data to QuickBooks	financial records stay in sync with our accounting system	OAuth-based connection, minimal manual entry

Priority	As a...	I want to...	So that...	Notes / Acceptance hints
Must	Salesperson	create a work order from a customer quote	approved quotes become actionable jobs on the shop floor	Work order links to customer, salesperson, template, estimated price
Should	Salesperson	attach customer-provided PDFs or CAD files to work orders	operators have access to client specifications	Drag-and-drop upload, file preview
Should	Salesperson	view customer information including contact details and order history	I can manage relationships and follow up on opportunities	Customer detail page with order timeline
Must	Quality Checker	approve or reject work order completions based on inspection	only quality products ship to customers	Pass/Fail with notes, rework routing
Should	Quality Checker	log inspection results and remediation notes for failed jobs	operators know what to fix and why	Inspection history visible on work order

3. System Architecture

3.1 Multi-Tenancy Model

Jigged is a multi-tenant SaaS application where:

- Multiple manufacturing companies (tenants) use the same application instance
- Each company's data is completely isolated
- Users may have access to multiple companies (e.g., consultants, shared employees)

Database Structure:

- `companies` - Each manufacturing shop is a separate company
- `user_company_access` - Junction table defining which users can access which companies
- `user_preferences` - Stores user preferences including last accessed company

Authentication Flow:

1. User logs in with email/password (Supabase Auth)
2. System checks company access:
   - **1 company:** Direct navigation to that company's dashboard
   - **Multiple companies:**

- First login: Show company selector

- Returning: Navigate to last accessed company

- Can switch companies from within the application

3. All subsequent operations are scoped to the selected company

URL Structure:

- `/dashboard/{companyId}` - All app routes include company context

- Company ID in URL ensures proper data isolation and allows bookmarking

Session Management:

- Last accessed company stored in database (not localStorage) for multi-device support

- Users can switch between companies without re-authenticating

- Company context persists across page refreshes

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4. Functional Requirements

4.1 Functional Requirements Table

ID	Title	Description	Priority	Acceptance Criteria
FR-1	Flexible Inventory Units	System must support multiple units of measurement per inventory item (e.g., a steel bar can be measured in both pounds and inches). When depleting inventory, users can specify the quantity in any supported unit and the system converts accordingly.	Must	Given a steel bar tracked in lbs, when an operator depletes 6 inches, then the system converts to lbs and decrements inventory correctly.
FR-2	Reorder Threshold Alerts	System must display visual alerts when inventory items fall below their configured reorder threshold. Alerts appear on the inventory dashboard and can trigger email notifications to designated users.	Must	Given an item with reorder threshold of 50 units, when quantity drops to 49, then a reorder alert is displayed and optional email sent.
FR-3	Work Order Creation from Quote	Salesperson can create a work order by selecting a customer, optionally choosing a template, entering estimated price,	Must	Given a new customer order, when salesperson creates work order with template, then it

ID	Title	Description	Priority	Acceptance Criteria
		and attaching files. Work order enters "Requested" status and awaits owner approval.		appears in Requested queue for owner approval.
FR-4	Work Order Approval Workflow	Owner can view all Requested work orders and approve or reject them. Approved work orders move to "Approved" status and become visible to operators. Rejected work orders are archived with notes.	Must	Given a Requested work order, when owner clicks Approve, then status changes to Approved and operators can see it.
FR-5	Station QR Code Login	Operators scan a QR code at a station to log in. The QR code encodes the station ID. After scanning, operator enters their PIN or scans their personal QR badge to identify themselves.	Must	Given an operator at Station 3, when they scan station QR and enter PIN, then they are logged into Station 3 and can assign work orders.
FR-6	Work Order Assignment to Station	Logged-in operator can enter a work order number to begin working on it. System records start time, associates operator with the work order, and tracks time until operator logs out or assigns a different work order.	Must	Given an operator logged into Station 3, when they enter WO-1234, then time tracking begins and WO-1234 shows "In Progress at Station 3".
FR-7	File Attachment Support	Work orders support PDF and CAD file attachments. Files can be uploaded by salesperson or admin. Operators can view attachments from the work order detail page on any device.	Must	Given a work order with attached PDF drawing, when operator views work order on phone, then they can open and zoom the PDF.
FR-8	Work Order Status Lifecycle	Work orders progress through defined statuses: Requested → Approved → In Progress → Quality Checked → Shipped → Delivered → Invoiced → Complete. Status changes are logged with timestamp and user.	Must	Given a work order in Quality Checked status, when QC approves, then status changes to ready for shipping with audit log entry.

ID	Title	Description	Priority	Acceptance Criteria
FR-9	Invoice Generation	Bookkeeper can generate an invoice for any work order in Shipped or Delivered status. Invoice includes work order details, line items, customer info, and calculated totals. Invoices can be exported as PDF.	Must	Given a shipped work order, when bookkeeper clicks Generate Invoice, then an invoice is created with correct pricing and can be downloaded as PDF.
FR-10	Invoice Payment Tracking	Bookkeeper can mark invoices as Paid and record payment date, amount, and method. System shows aging report of outstanding invoices.	Must	Given an outstanding invoice, when bookkeeper marks as paid with $500, then invoice status updates and aging report reflects the change.
FR-11	Work Order Templates	Owner/Engineer can create templates that define station routing (series or parallel flows), estimated time per station, and materials consumed. Templates speed up work order creation for repeat jobs.	Should	Given a template for "Custom Reamer", when salesperson creates work order using template, then routing and material estimates auto-populate.
FR-12	Operator Performance Gamification	Operators see real-time performance metrics including jobs completed, average time per station, and streaks for consecutive on-time completions. Achievements unlock for milestones.	Should	Given an operator who completes 5 jobs on-time, when they view dashboard, then a "5-streak" badge is visible.
FR-13	Inventory Transaction History	All inventory changes (additions, depletions, adjustments) are logged with timestamp, user, work order (if applicable), and quantity. Users can filter and export transaction history.	Should	Given an inventory item, when user views history, then all transactions are listed chronologically with full details.
FR-14	Shipping Label Generation	Admin can generate shipping labels for completed work orders. Integration with USPS, UPS, and FedEx APIs. Focus on USPS flat rate boxes for initial release.	Should	Given a work order ready to ship, when admin clicks Generate Label, then a USPS label is created and tracking number is stored.

ID	Title	Description	Priority	Acceptance Criteria
FR-15	QuickBooks Integration	Invoices can be synced to QuickBooks Online via OAuth connection. Sync creates matching invoice in QuickBooks with customer and line item mapping.	Should	Given a Jigged invoice, when bookkeeper clicks Sync to QuickBooks, then invoice appears in QuickBooks with correct customer.
FR-16	Legacy Data Migration	System supports CSV upload for inventory items, customers, and work order history. Upload wizard validates data, flags errors, and allows user correction before import.	Should	Given a CSV export from Tangle, when owner uploads to migration wizard, then data is validated and imported with error report.
FR-17	Owner Dashboard with Insights	Dashboard displays key metrics: active work orders, revenue in progress, inventory alerts, operator compliance rate, and jobs at risk of delay. AI-powered insights highlight bottlenecks.	Should	Given current shop data, when owner views dashboard, then they see WIP value, 3 inventory alerts, and 2 at-risk jobs flagged by AI.
FR-18	Natural Language Business Queries	Owner can type questions like "What was revenue last month?" or "Which customer has the most open orders?" and receive AI-generated answers based on system data.	Could	Given the question "What's my average order value this quarter?", when owner submits, then AI returns calculated answer with source data.
FR-19	Quality Inspection Workflow	Quality Checker can view completed work orders, perform inspection, and mark as Pass or Fail. Failed jobs route back to production with notes. Passed jobs advance to Shipped queue.	Must	Given a work order awaiting QC, when checker marks Fail with notes "Tolerance out of spec", then work order routes back to operator with notes visible.
FR-20	Customer Management	System maintains customer records with contact info, shipping addresses, and order history. New customers are created when first work order is entered.	Should	Given a new work order for "Acme Corp", when submitted, then Acme Corp customer record is created if not exists with contact details.

ID	Title	Description	Priority	Acceptance Criteria
		Admin can edit/delete customer records.		

4.2 Flows and Scenarios

Flow 1: Work Order Happy Path

1. Customer requests quote from Salesperson

2. Salesperson creates Work Order from quote (status: Requested)

3. Owner reviews and approves Work Order (status: Approved)

4. Operator scans station QR, enters Work Order number (status: In Progress)

5. Operator completes work, logs output

6. Operators at successive stations scan QR code, complete work & log output until final station.

7. Quality Checker inspects and approves (status: Quality Checked)

8. Admin generates shipping label, ships order (status: Shipped)

9. Carrier delivers, tracking updates (status: Delivered)

10. Bookkeeper generates and sends invoice (status: Invoiced)

11. Customer pays, bookkeeper marks paid (status: Complete)

Flow 2: Quality Rejection / Rework

1. Quality Checker inspects work order output

2. QC marks as Fail with notes ("Dimension out of tolerance")

3. Work order routes back to "In Progress" with rework flag

4. Operator sees rework notification with QC notes

5. Operator completes rework, logs output

6. Optional successive rework at downstream station until final station

7. Work order returns to QC queue

8. QC re-inspects and approves

Flow 3: Inventory Reorder

1. Operator depletes inventory during work order execution

2. Inventory drops below reorder threshold

3. System displays alert on Owner dashboard

4. Owner reviews and approves reorder

5. Admin places order with supplier (manual, external)

6. Material arrives, Admin logs receipt to increment inventory

7. Reorder alert clears

Flow 4: Operator Shift Start

1. Operator arrives at station (e.g., CNC Lathe #2)

2. Operator scans station QR code with personal phone

3. System prompts for operator identification (PIN or badge scan)

4. Operator authenticated and logged into station

5. Operator views available work orders, selects one

6. Time tracking begins for operator + work order + station combination

5. Non-Functional Requirements (NFRs)

5.1 NFR Overview Table

ID	Category	Requirement	Measurement / Target	Notes
NFR-1	Performance	Page load and API response times must be fast enough for shop floor use	95% of page loads < 2 seconds, 99% of API requests < 500ms under 50 concurrent users	Operators on shop floor need quick response to maintain workflow
NFR-2	Performance	Mobile experience must be responsive on low-end devices	Functional on 3-year-old Android phones with 4G connection	Operators often use personal phones, not latest models
NFR-3	Security	All data in transit must be encrypted	HTTPS/TLS 1.2+ for all connections	Standard security baseline
NFR-4	Security	Authentication must be secure but not burdensome for shop floor	Supabase Auth with session persistence, optional PIN for quick re-auth	Balance security with operator convenience
NFR-5	Security	Role-based access control	Users see only data/actions appropriate to their role (Owner, Operator, Admin, etc.)	Enforce least-privilege principle
NFR-6	Reliability / Availability	System must be highly available during shop operating hours	99.5% monthly uptime (allows ~3.6 hours downtime/month)	Scheduled maintenance during off-hours (nights/weekends)
NFR-7	Reliability / Availability	Data must be backed up and	Daily automated backups, RPO < 24	Supabase provides automated backups

ID	Category	Requirement	Measurement / Target	Notes
		recoverable	hours, RTO < 4 hours	
NFR-8	Scalability	System must support typical small shop workloads	Support 1-50 concurrent users, 10,000+ inventory items, 5,000+ work orders	Designed for small shops; enterprise scale is out of scope for V1
NFR-9	Usability	Interface must be intuitive for non-technical users	New operator productive within 15 minutes, no formal training required	Shop workers may have limited software experience
NFR-10	Usability	Follow Material Design principles for consistency	Use Material UI component library throughout	Provides professional, consistent UX
NFR-11	Usability	Mobile-first design for operator interfaces	All operator functions fully usable on mobile devices	Operators use personal phones on shop floor
NFR-12	Accessibility	Basic accessibility for vision-impaired users	WCAG 2.1 Level A compliance	Good contrast, keyboard navigation, screen reader basics
NFR-13	Compliance	Data residency in United States	All data stored in US-based data centers	Supabase region selection
NFR-14	Auditability	Key actions must be logged for traceability	Audit log for work order changes, inventory transactions, user logins	Supports quality compliance and dispute resolution

5.2 Additional NFR Details

Performance Considerations

Shop floor operations are time-sensitive. If the system is slow, operators will bypass it or enter incorrect data to save time. Target sub-2-second page loads and responsive UI interactions. Consider offline capability for critical functions if connectivity is unreliable.

Security Model

Role-based access ensures operators can't access financial data, and bookkeepers can't modify work orders.

Usability for Shop Environment

Shop floors are noisy, dirty, and workers may have gloves on. UI elements should be large touch targets. QR codes enable login without typing. Consider voice input for future iterations.

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6. Data and Integrations

Data Model Notes

Core Entities:

- **Customer**: id, name, email, phone, address, created_at, updated_at

- **Inventory Item**: id, name, description, sku, unit_of_measure, quantity, reorder_threshold, cost_per_unit, location, created_at, updated_at

- **Inventory Transaction**: id, item_id, quantity_change, unit, transaction_type (add/deplete/adjust), work_order_id, user_id, notes, created_at

- **Work Order**: id, customer_id, template_id, salesperson_id, status, estimated_price, actual_price, priority, due_date, created_at, updated_at

- **Work Order Attachment**: id, work_order_id, file_name, file_url, file_type, uploaded_by, created_at

- **Work Order Template**: id, name, description, station_routing (JSON), estimated_materials (JSON), estimated_time, created_by

- **Station**: id, name, description, qr_code, location, created_at

- **Operator Session**: id, user_id, station_id, work_order_id, start_time, end_time, created_at

- **Invoice**: id, work_order_id, customer_id, amount, status (draft/sent/paid/overdue), due_date, paid_date, quickbooks_id, created_at

- **User**: id, email, name, role (owner/admin/operator/salesperson/bookkeeper/quality), pin_hash, created_at

- **Shipment**: id, work_order_id, carrier, tracking_number, label_url, status, shipped_at, delivered_at

- **Quality Inspection**: id, work_order_id, inspector_id, result (pass/fail), notes, inspected_at

Key Relationships:

- Work Order → Customer (many-to-one)

- Work Order → Template (many-to-one, optional)

- Work Order → Attachments (one-to-many)

- Work Order → Invoice (one-to-one)

- Work Order → Shipment (one-to-one)

- Work Order → Quality Inspections (one-to-many)

- Inventory Transaction → Item (many-to-one)

- Inventory Transaction → Work Order (many-to-one, optional)

- Operator Session → User, Station, Work Order (many-to-one each)

External Systems / Integrations

System	Type	Direction	Data Exchanged	Protocol / Interface	Notes
QuickBooks Online	3rd party	Outbound	Invoices, customer records	REST API, OAuth 2.0	Sync invoices for bookkeeping; should priority
USPS Web Tools	3rd party	Outbound	Shipping label requests, tracking	REST API	Primary carrier for flat rate boxes
UPS APIs	3rd party	Outbound	Shipping labels, tracking	REST API, OAuth	Secondary carrier option
FedEx APIs	3rd party	Outbound	Shipping labels, tracking	REST API, OAuth	Secondary carrier option
Supabase Storage (S3)	Internal	Both	PDF drawings, CAD files, shipping labels	S3-compatible API	File storage for work order attachments
OpenAI / Anthropic API	3rd party	Outbound	Natural language queries, insight generation	REST API	Powers AI insights and NL queries (Could priority)
Email Service (SendGrid/Resend)	3rd party	Outbound	Invoice emails, reorder alerts, notifications	REST API	Transactional email for notifications

7. Technical Constraints

1. **Frontend**: Next.js with TypeScript, Material UI component library and iconography

2. **Backend**: FastAPI (Python) for API endpoints

3. **Hosting**: Frontend and Backend hosted on Vercel (backend as serverless functions)

4. **Database**: PostgreSQL hosted on Supabase

5. **File Storage**: Supabase Storage (S3-compatible) for PDFs, CAD files, labels

6. **Authentication**: Supabase Auth (email/password, with optional PIN for quick shop-floor re-auth)

Risks

1. **Supabase Vendor Lock-in**: Heavy reliance on Supabase for DB, auth, and storage. Mitigation: Use standard PostgreSQL patterns, abstract storage layer.

2. **Serverless Cold Starts**: Vercel serverless functions may have latency on first request. Mitigation: Keep functions warm, optimize bundle size.

3. **Shop Connectivity**: Manufacturing floors may have spotty WiFi/cellular. Mitigation: Design for graceful degradation, consider offline-first for critical paths.

4. **Integration Complexity**: QuickBooks, shipping carrier APIs have rate limits and can be brittle. Mitigation: Queue-based sync, robust error handling, manual fallbacks.

5. **User Adoption**: Operators may resist new system if not easier than current process. Mitigation: Focus on UX, gamification, involve users in testing.

Assumptions

1. Target customers have reliable internet connectivity in their office (may be spotty on shop floor)

2. Operators have access to personal smartphones with modern browsers

3. Shops operate primarily during weekday business hours (maintenance windows available nights/weekends)

4. Initial target is single-location shops (multi-location is V2)

5. English-only interface for V1 (localization is future consideration)

6. Customers are comfortable with SaaS/cloud-based tools (no on-premise requirement)

7. Legacy data from Tangle/E2 JobBoss can be exported to CSV for migration

8. Shop owner (Shane) available for feedback during development

8. Milestones and Release Plan

Milestone	Description	Owner	Target Date	Status
Discovery complete	PRD finalized, technical architecture approved, design mockups reviewed	Debola	@Dec 29	In progress
MVP ready	Core features: Work orders, inventory, operator stations, basic invoicing. Deployed to Contour for pilot.	Debola	@Jan 4	Not started
Pilot feedback incorporated	Contour uses system for 60 days, feedback collected and addressed	Debola / Shane	@Apr 30	Not started
GA release	Public launch with integrations (QuickBooks, shipping carriers), marketing site live	Debola	@July 31, 2026	Not started

9. Open Questions

1. What is the pricing model? (Per-user? Per-shop? Tiered by work order volume?)

    a. The pricing model is per user

2. Should operators be able to deplete inventory without associating to a work order? (For shop supplies, maintenance materials?)

   a. Yes, you should primarily deplete inventory through work orders but for many other reasons you should be able to do it elsewhere

3. What is the target timeline for MVP deployment to Contour?

   a. 6 months

4. Does Contour have ITAR compliance requirements that would affect data handling?

   a. No

5. What specific reports or exports does Shane currently use from Tangle that must be replicated?

   a. Exports to excel for all the data elements, no visualizations yet

6. What is the tolerance for offline operation on the shop floor? (Must-have or nice-to-have?)

   a. Nice to have

7. Should work order templates support parallel station routing (e.g., two operations happen simultaneously) or only series?

   a. Parallel is a must have

8. What gamification elements are most motivating for operators? (Leaderboards? Badges? Cash bonuses tied to achievements?)

   a. Leaderboards, badges and customization. no cash bonuses as all value should be intrinsic to the app