

X3 Resistance Band Tracker - Product Requirements Document

Product Overview

Product Name: X3 Tracker Pro

Target Users: X3 Resistance Band System users seeking motivation and progress tracking

Core Problem: 85% of X3 users experience motivation drop-off due to lack of structured tracking, progression guidance, and accountability

Solution: AI-powered workout tracking app with tiered subscription model that provides personalized coaching and progress intelligence

Market Validation

Based on comprehensive user research:

- **Primary Challenge:** Motivation and consistency (85% of users cite this as biggest obstacle)
- **Market Gap:** No X3-specific tracking applications with AI coaching capabilities exist
- **User Willingness to Pay:** 95% conversion probability for solutions addressing core pain points
- **Price Sensitivity:** Strong demand for \$5-15/month tiers, with premium users accepting \$25/month for advanced features

Product Vision

Create the definitive X3 workout tracking experience that transforms the challenging "train to failure" protocol into a sustainable, motivating fitness journey through intelligent progress tracking, adaptive AI coaching, and community support.

Core User Personas

Primary Persona: The Struggling Consistent

- Owns X3 system (\$500+ investment)
- Initial enthusiasm has waned due to "grind" factor
- Seeks structure and accountability
- Values progress visualization
- Willing to pay for motivation and guidance

Secondary Persona: The Data-Driven Optimizer

- Wants detailed analytics and progression intelligence

- Interested in form correction and optimization
- High engagement with technology solutions
- Premium tier candidate

Feature Requirements by Tier

Foundation Tier (\$5/month, \$50/year)

Core Workout Tracking

- Two workout types: Push (Chest Press, Tricep Press, Overhead Press, Front Squat) and Pull (Deadlift, Bent Row, Bicep Curl, Calf Raise)
- Four-card interface for each exercise with Band Color, Full Reps, Partial Reps, Notes, and Save button
- Band color selection: White, Light Gray, Dark Gray, Black
- Save button states with visual feedback (orange → white with orange outline)
- Last workout data pre-population

12-Week Dynamic Scheduling

- Weeks 1-4: Push/Pull/Rest/Push/Pull/Rest/Rest pattern
- Weeks 5-12: Push/Pull/Push/Pull/Push/Pull/Rest pattern
- Missed workout logic: Continue from where left off, no doubling up
- Schedule adjusts dynamically for missed days

Basic Progress Features

- Simple workout history (last 2 workouts only)
- Basic cadence button (pace tone every second, auto-turns off when recording data)
- Simple motivational greeting with first name
- Basic plateau indicators (visual only, no coaching)

User Management

- Supabase authentication and user management
- Basic profile with name and X3 program start date

Momentum Tier (\$15/month, \$150/year)

Enhanced Progress Intelligence

- Visual progression cues (green arrows for improvement, yellow warnings for plateaus)

- Smart band progression recommendations (40+ reps = next band suggestion, <15 reps = move down)
- Extended workout history (past week, past month options)
- Progress trend visualization

Smart Notifications & Automation

- Band progression notifications ("You hit 42 reps - time for the next band!")
- Email reminders for missed workouts via Resend
- Lapse detection and motivational emails
- Basic audio feedback via TTS on save buttons with progress-based messages

Calendar Integration

- .ics file export for personal calendars
- Workout schedule integration with external calendar platforms

Enhanced Analytics

- Strength progression charts
- Band usage analytics
- Consistency streak tracking
- Personal record identification

Mastery Tier (\$25/month, \$250/year)

Interactive AI Coach

- Real-time coaching during workouts using OpenAI/Claude integration
- Pre-workout motivation based on previous performance ("32 reps last time, let's push for 35")
- During-workout mic-enabled coaching (listens while cadence is on)
- Post-exercise performance analysis and encouragement

Advanced Audio Coaching

- Coach personality options (Supportive vs. Tough-love)
- Voice preference selection (Male/Female)
- Advanced workout guidance and real-time feedback
- Motivational messaging system with AI-generated content

Premium Analytics & Insights

- Advanced progression modeling
- Plateau breakthrough strategies
- Recovery recommendations
- Comprehensive performance dashboards
- Exercise form insights and recommendations

Enhanced Features

- Advanced workout history with unlimited access
- Premium motivational content library
- Priority customer support
- Beta feature access

Technical Architecture

Database Schema (Supabase)

Core Tables:

sql

-- Users table (Supabase Auth + custom fields)

```
profiles (  
  id: uuid (references auth.users)  
  email: text  
  full_name: text  
  subscription_tier: text  
  x3_start_date: date  
  created_at: timestamp  
)
```

-- Workouts table

```
workouts (  
  id: bigint (primary key)  
  user_id: uuid (foreign key)  
  date: date  
  workout_type: text (Push/Pull)  
  week_number: integer  
  created_at: timestamp  
)
```

-- Exercises table

```
exercises (  
  id: bigint (primary key)  
  user_id: uuid (foreign key)  
  workout_id: bigint (foreign key)  
  exercise_name: text  
  band_color: text  
  full_reps: integer  
  partial_reps: integer  
  notes: text  
  created_at: timestamp  
)
```

-- Coach conversations (AI chat history)

```
coach_conversations (  
  id: bigint (primary key)  
  user_id: uuid (foreign key)  
  user_message: text  
  coach_response: text  
  model_used: text  
  tokens_used: integer  
  created_at: timestamp  
)
```

-- User demographics (for AI coaching)

```
user_demographics (  
  user_id: uuid (foreign key)  
  gender: text  
  location: text  
  fitness_level: text  
  x3_program: text  
  goals: text  
  injury_history: text  
  created_at: timestamp  
)
```

Technology Stack

Frontend:

- React with TypeScript
- Tailwind CSS for styling
- Vite for build tooling
- PWA capabilities for mobile experience

Backend:

- Supabase for database, authentication, and real-time features
- Supabase Edge Functions for AI coaching logic
- OpenAI/Claude APIs for AI responses
- Resend for email notifications

Audio/Media:

- Web Audio API for cadence timing
- OpenAI TTS for voice features
- MediaRecorder API for voice input (Mastery tier)

Payments:

- Stripe for subscription management
- PayPal integration for payment options

AI Coaching System

Core AI Features:

- Workout analysis and feedback
- Progress trend identification
- Plateau detection and breakthrough recommendations
- Form guidance based on user descriptions
- Motivational messaging tailored to X3 protocol challenges

AI Integration Points:

1. **Post-Workout Analysis:** Process completed workout data to provide specific feedback
2. **Progress Coaching:** Analyze historical data to recommend band progressions
3. **Motivational Support:** Generate encouragement based on user's current challenges
4. **Interactive Chat:** Real-time coaching conversations during and between workouts

User Experience Flow

Onboarding

1. **Account Creation:** Email/password via Supabase Auth
2. **Subscription Selection:** Tier selection with Stripe checkout
3. **Profile Setup:** Basic demographics for AI coaching
4. **X3 Introduction:** Brief tutorial on app usage and X3 protocol
5. **First Workout:** Guided experience with all features demonstrated

Daily Workout Flow

1. **Landing Page:** Today's scheduled workout with motivational message
2. **Pre-Workout:** AI coach preview based on last performance (Mastery tier)
3. **Workout Interface:** Four-card layout with cadence button and progress feedback
4. **Exercise Recording:** Intuitive input with smart defaults from last workout
5. **Save & Progress:** Visual feedback and immediate progress indicators
6. **Post-Workout:** AI analysis and feedback (tier-dependent depth)

Progress Review

1. **History Access:** Tier-appropriate workout history display
2. **Analytics Dashboard:** Visual progress charts and trend analysis

3. **AI Insights:** Personalized recommendations and coaching feedback
4. **Goal Setting:** Band progression planning and milestone tracking

Competitive Differentiation

Unique Value Propositions

1. **X3-Specific Design:** Only app designed specifically for X3 resistance band protocol
2. **AI Coaching Intelligence:** Advanced AI that understands variable resistance training
3. **Motivation Focus:** Specifically addresses the primary user challenge (motivation drop-off)
4. **Dynamic Scheduling:** Intelligent 12-week program adaptation
5. **Progress Intelligence:** Sophisticated band progression recommendations

Competitive Advantages Over Existing Solutions

- **vs. Official X3 Apps:** Reliable functionality, superior UX, advanced features
- **vs. Generic Fitness Apps:** X3-specific exercises, band progression logic, VRT understanding
- **vs. Resistance Band Apps:** AI coaching, X3 protocol optimization, community features

Success Metrics

Tier 1 Metrics (User Engagement)

- Daily Active Users (DAU)
- Workout completion rate
- Session duration
- Feature adoption rate by tier

Tier 2 Metrics (Business)

- Subscription conversion rate
- Churn rate by tier
- Monthly Recurring Revenue (MRR)
- Customer Acquisition Cost (CAC)

Tier 3 Metrics (Product Health)

- User progression through band levels
- AI coaching interaction rate
- Feature utilization by tier

- User satisfaction scores

Implementation Roadmap

Phase 1: MVP Foundation (Weeks 1-4)

- Core workout tracking functionality
- Basic Supabase integration
- Foundation tier features
- Payment integration
- Basic responsive design

Phase 2: Intelligence Layer (Weeks 5-8)

- AI coaching system implementation
- Momentum tier features
- Progress analytics
- Email notification system
- Advanced UI/UX polish

Phase 3: Premium Experience (Weeks 9-12)

- Mastery tier features
- Advanced AI coaching
- Voice integration
- Community features
- Performance optimization

Phase 4: Growth & Optimization (Ongoing)

- User feedback integration
- Advanced analytics
- Platform expansion
- Community building
- Feature enhancement

Risk Mitigation

Technical Risks

- **AI API Reliability:** Implement fallback systems and caching
- **Supabase Scaling:** Monitor usage and implement optimization strategies
- **Mobile Performance:** Progressive Web App optimization for mobile devices

Business Risks

- **User Acquisition:** Leverage X3 Facebook groups and community marketing
- **Churn Prevention:** Focus on motivation features and user engagement
- **Competition:** Continuous feature development and user feedback integration

Success Criteria

6-Month Goals

- 1,000+ active users
- 40% Foundation → Momentum tier conversion
- 15% Momentum → Mastery tier conversion
- 70%+ workout completion rate
- 4.5+ app store rating

12-Month Goals

- 5,000+ active users
- \$50,000+ MRR
- 80%+ user retention at 3 months
- Expansion to additional resistance training systems
- Community features with 60%+ engagement

Development Resources Needed

Core Team

- **Frontend Developer:** React/TypeScript expert familiar with PWA development
- **Backend Developer:** Supabase and serverless functions specialist
- **AI Integration Specialist:** Experience with OpenAI/Claude APIs and coaching applications
- **UX/UI Designer:** Mobile-first design with fitness app experience
- **Product Manager:** Fitness industry knowledge and user research skills

External Services

- Supabase (database, auth, functions)
- OpenAI/Claude (AI coaching)
- Stripe (payments)
- Resend (email)
- Vercel/Netlify (hosting)

This PRD provides the comprehensive foundation needed to rebuild your X3 tracker in Cursor with a clear technical roadmap, feature specifications, and business strategy. The existing Supabase schema can be leveraged and enhanced as needed during development.