



Fabrikator

Democratizing Smart Device Creation

Through AI and Blockchain

Lightpaper v1.0

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Executive Summary

Fabrikator revolutionizes smart device creation by combining cutting-edge AI and blockchain technology. Our platform democratizes custom smart device creation—from drones to automated systems—by eliminating technical barriers and offering an intuitive, AI-guided process.

Key Features:

- AI-powered development from concept to creation
- Automated component selection and compatibility checking
- Intelligent wiring and assembly guidance
- 3D modeling and printing optimization
- Decentralized marketplace for AI models and services
- Local manufacturing network

Market Opportunity:

- \$500B+ smart device market (2025)
- 15% CAGR in DIY electronics
- 20% CAGR in 3D printing
- 30% CAGR in AI services

Vision & Market Opportunity

Vision

To democratize smart device creation, making it accessible to everyone while building a sustainable ecosystem of creators, developers, and manufacturers.

Market Landscape

The smart device market is experiencing unprecedented growth, driven by:

- Increasing demand for customized IoT solutions
- Growing maker community and DIY culture
- Advancements in AI and manufacturing technologies
- Rising need for rapid prototyping

Market Pain Points

Current challenges in the smart device creation space:

- High technical barriers to entry
- Fragmented development tools
- Limited access to AI capabilities
- Expensive prototyping costs
- Complex manufacturing processes

Market Size

- Smart device market: \$500B+ (2025)
- DIY electronics: \$15B+ (15% CAGR)
- 3D printing: \$35B+ (20% CAGR)
- AI services: \$200B+ (30% CAGR)

The Fabrikator Solution

AI-Powered Development

From concept to creation, our AI guides users through every step:

- Natural language to technical specification conversion
- Smart component selection and compatibility checking
- Automated wiring and assembly guidance
- AI-assisted code generation
- 3D modeling and printing optimization

Blockchain-Enabled Marketplace

A decentralized ecosystem for:

- AI model trading
- Computing power exchange
- Component and design marketplace
- Expert services
- Secure transactions

Community Ecosystem

- Bounty system for expert assistance
- Local manufacturing network

Key Innovations

- **AI Orchestration System:** Seamlessly coordinates all aspects of device creation
- **Component Compatibility Engine:** Ensures perfect component matching
- **Real-time Simulation Platform:** Instantly validates code before manufacturing
- **Decentralized Marketplace:** Allowing the platform to grow organically and add new features

User Experience

Intuitive Interface

- Natural language input for device specifications
- Visual design interface with real-time feedback
- Step-by-step guided assembly process
- Interactive 3D model viewer

AI Assistance

- Smart suggestions for component selection
- Automated compatibility checking
- Automated wiring
- Automated code generation
- Real-time error detection and correction
- Context-aware help system

Community Support

- Expert consultation marketplace
- Project sharing and remixing
- Local maker space integration

Marketplace & Professional Services

AI Model Marketplace

- Trading of specialized AI models
- Model performance metrics and ratings
- Usage-based pricing
- Trading of training data

Expert Marketplace

- Bounties for problem resolution
- Custom development services
- Assembly assistance
- 3D printing services

Tools Marketplace

- Simulation plugins
- AI prompts
- Component libraries
- Libraries and code snippets

3D Models Marketplace

- Ready to print specialized parts
- Models of components
- Joints and connectors

AI Training & Improvement

Training Data Sources

- User project data (anonymized)
- Component specifications and datasheets
- Manufacturing guidelines
- Expert knowledge base
- Simulation results

Model Architecture

- Multi-modal AI system
- Specialized sub-networks
- Continuous learning pipeline
- Quality assurance mechanisms
- Performance monitoring

Training Process

- Distributed training on Bittensor
- Automated hyperparameter optimization
- Cross-validation and testing

Tokenomics

Utility

The FAB token is designed as a utility token that primarily serves as an investment vehicle and purchasing power for Fabrikator projects. Unlike traditional utility tokens, FAB is not used for platform fees, governance, or AI service payments.

Token Utility

- **Project Investment & Purchasing Power:** FAB tokens provide investors with purchasing power for projects created on the platform, enabling them to acquire projects that can be used to train their AI models
- **Project Monetization:** End users can sell their completed projects for FAB tokens
- **Bounty Payments:** FAB tokens can be used to pay for bounties on the platform
- **Professional Services:** Assembly and 3D printing professionals can accept FAB as payment for their services

Token Distribution

- **Investors:** 40% - For project investment and purchasing power
- **Team & Development:** 20% - Vesting over 3 years
- **Ecosystem Growth:** 20% - For platform development and community incentives
- **Liquidity Pool:** 20% - For FAB/TAO trading pairs (30% of raised funds allocated to liquidity)

Payment Model

- Platform fees and AI services are paid in TAO (Bittensor's native token)
- End users can pay with fiat currency for most services
- FAB tokens are not used for platform fees, governance, or AI service payments
- Liquidity is provided for FAB/TAO trading pairs to ensure smooth conversion between tokens

Token Economics

- Total Supply: 100,000,000 FAB
- Initial Circulating Supply: 20% of total supply
- Vesting Schedule: Team tokens vest over 3 years with 6-month cliff
- Liquidity Lock: 30% of raised funds locked for FAB/TAO liquidity

Value Accrual

The value of FAB tokens is primarily derived from:

- Demand for project purchasing power from investors
- Project monetization by end users
- Bounty payments and professional services
- Liquidity pool participation

Token Release Schedule

- TGE: 20% of total supply
- Year 1: Additional 20% (including team vesting)
- Year 2: Additional 30%
- Year 3: Remaining 30%

Liquidity Management

- 30% of raised funds allocated to FAB/TAO liquidity pool
- Liquidity pool tokens locked for minimum 1 year
- Additional liquidity incentives may be implemented based on market conditions

Roadmap

Q4 2025: Fundraising

- Core team assembly
- Platform architecture design
- Initial token distribution
- Proof of concept
- Initial marketing campaign

Q3 2026: Core Features

- Alpha version of the platform
- Integration with Bittensor marketplace
- Beginning of training data collection
- Aggressive marketing campaign

Q1 2027: Custom AI models

- Integration of other AI platforms
- Integration with Bittensor marketplace
- Training of custom AI models

Q2 2027: Release Marketplace

- Official release of the building platform
- Introduction of the marketplace
- Users can select AI models from the marketplace

Q3 2027: Professional Services

- Bounties
- Assembly and 3D printing services added to marketplace

Market Strategy

Target Markets

- DIY electronics enthusiasts
- Small businesses and startups
- Educational institutions

Go-to-Market Strategy

- Community-first approach
- Strategic partnerships with AI players
- Strategic partnerships with 3D model platforms
- Content marketing

Growth Channels

- Social media presence
- Technical blog and tutorials
- Industry events and conferences
- Partnership programs
- Referral system

Competitive Advantage

- AI-first approach
- Decentralized infrastructure
- Open ecosystem
- Sustainable tokenomics

Partnership Strategy

- Component manufacturers
- Educational institutions
- Maker spaces
- Technology providers

Conclusion

Fabrikator represents a paradigm shift in smart device creation, combining cutting-edge AI technology with blockchain innovation to democratize access to custom device development. Our platform eliminates technical barriers while fostering a sustainable ecosystem of creators, developers, and manufacturers.

Key Takeaways:

- Revolutionary AI-powered development platform
- Decentralized marketplace for components and services
- Strong focus on community and sustainability
- Clear roadmap for growth and development

Next Steps:

- Launch of initial platform features
- Community building and engagement
- Strategic partnership development
- Token generation event