Home Craft 3D — Comprehensive Platform Outline

This document defines what Home Craft 3D is today and what it is intended to become. It serves as a source-of-truth reference for platform scope, user roles, navigation, features, and future requirements. It will be used to compare against the current build to identify remaining work required to reach a complete, production-ready marketplace.

1. Platform Overview

Home Craft 3D is an online marketplace where consumers and sellers buy and sell 3D printable digital files and physical 3D printed models shipped to customers. The platform prioritizes ease of navigation, seller flexibility, and a legitimate e-commerce experience with strong guardrails.

Sellers may optionally offer free products (files or physical items). The platform supports both paid and free transactions with consistent workflows.

2. User Types & Access Levels

- Anonymous Guests: Browse storefront, products, categories, and public pages without an account.

- Consumers: Registered users who purchase products, manage orders, favorites, and wishlists.

- Sellers: Registered users who list digital files and/or physical models for sale or free distribution.

- Staff / Admin: Platform operators with elevated permissions, analytics, financial oversight, and configuration access.

Three user types (Consumer, Seller, Staff) require profiles. Usernames are unique, immutable, tied to email, and used as store identifiers unless a custom shop name is provided.

3. Global Navigation Structure

Home Craft 3D uses a dual-navigation system:

- Navbar: Handles site-wide information, identity, and actions.

- Sidebar: Handles store browsing, discovery, and category navigation.

4. Navbar Definition

- Logo (left): Links to homepage.

- Center Menu: Storefront, All Products, 3D Models, 3D Files, Blog (placeholder), Community Chat (placeholder).

- User Menus (right): My Store dropdown, My Orders dropdown.

- Utilities: Dashboard link, search input + button, cart link.

- Profile Dropdown: Profile, account settings, logout.

- Theme Toggle: Light/Dark mode.

Above the navbar is a promotional banner controlled via admin settings.

5. Sidebar Definition

- New Products

- Trending Products

- Featured Products

- Hidden Filter Control

- 3D Models Categories (with subcategories)

- 3D Files Categories (with identical subcategories)

- Advertisement space for 3D printing materials and equipment

6. Homepage Layout

- Admin-controlled homepage banner

- Hero section

- New Products cards

- Trending Products cards

- Featured Products cards

- Links to Top Sellers and Top Products

7. User Profiles

All registered users have a profile containing:

- Username (immutable)

- Email (locked; change requires verification)

- Optional address and contact info

- Optional profile picture

8. Dashboards

All logged-in users have dashboards with role-specific sidebars.

Consumer Dashboard:

- Purchase history

- Favorites

- Wishlist

- Prompt encouraging upgrade to Seller account

Seller Dashboard:

- Sales history

- Financial summaries

- Stripe payouts

- Order fulfillment

- Listings management

- Free product distribution card

- Profile and account settings

Staff Dashboard:

- Site-wide financials

- Analytics

- Admin shortcuts

- Consumer and seller oversight

- Config mirrored from Django admin

9. Seller Listings Workflow

- Listings page separated by 3D Models and 3D Files

- Each listing shows thumbnail, title, category, units sold/downloaded, price, active status

- Actions: edit listing, edit specs, edit asset, copy product, activate/deactivate, delete

Listing creation is a multi-step flow:

- Step 1: Select product type (model or file), category, subcategory, title, description, price, free/paid

- Step 2: Upload images, reorder, select primary image

- Step 3: Enter product specifications

- Step 4: Upload digital file or define physical model parameters

- Final: Redirect to listings with activation control

10. Product Page

- Image gallery with main image and thumbnails

- Similar products carousel

- Product title, description, price

- Model/File designation

- Color options (for physical models)

- Order instructions input

- Quantity selector and add-to-cart

- Tip input

- Product description and specs

- FAQs and reviews

11. Cart & Checkout

- Cart grouped by seller and product

- Quantity editing

- Tip per product or seller

- Stripe checkout integration

12. Security & Compliance

- reCAPTCHA v3 on sensitive actions

- 2FA for staff

- Email verification required

- Immutable usernames

- Secure Stripe payments

13. Missing / Recommended Additions

- Seller storefront customization options (within platform limits)

- Advanced search and filtering

- Public seller profile pages

- Product Q&A; section

- Dispute and refund workflows

- Download history for digital files

- Analytics per seller

- Notification system (email + in-app)

- Help / 3D Printing Tips section

- Roadmap for mobile optimization

14. Guiding Principles

- Ease of navigation

- Seller-first flexibility with guardrails

- Legitimate marketplace behavior

- Admin-controlled but scalable

- Clear upgrade paths for users