LayoutGenius: Rapid Space Prototyping

Vision & Value Proposition

LayoutGenius shifts the event producer's role from manual CAD technician to strategic experience designer.

Deeper Attendee Engagement: AI-optimized sightlines and flow patterns ensure every seat is the best seat in the house.

Measurable Outcomes: Instantly validate capacity and safety, providing rapid iterations to justify venue and infrastructure spend.

Sponsor & Exhibitor Value: Generate heatmap predictions of traffic flow to sell premium locations based on visual prominence and accessibility.

Data Longevity: Exportable digital twins of event spaces allow for year-over-year comparison of spatial effectiveness and foot-traffic ROI.

Scalability: Handles everything from a 12-person executive boardroom setup to a 5,000-person multi-hall trade show floor.

Attendee & Stakeholder Impact

The Event Producer: Needs to iterate fast under tight deadlines. Pain: Manually updating CAD files for every client whim. Quote: 'I can now show a client three different ballroom options in minutes while we are standing in the empty space.'

The Sponsor Activation Manager: Needs to prove ROI. Pain: Static floor plans don't show how people move. Quote: 'LayoutGenius gave me the data to show our headline sponsor exactly why their booth placement was worth the investment.'

The Health & Safety Officer (Non-obvious): Needs to ensure legal compliance. Pain: Late-stage design changes that violate fire codes. Quote: 'By checking exit widths at the sketch phase, we avoided three major on-site rebuilds this year.'

Feasibility Assessment

The TRL scale (1–9) tells us how close a technology is to being reliably used in the real world — 1 is a raw idea, 9 is fully proven and deployed at scale.

Technology Readiness (TRL 5): The underlying computer vision for sketch-to-image is mature; the primary development need is training the AI on industry-specific event furniture and staging symbols.

The BRL scale (1–9) measures how ready an innovation is for real-world deployment — from early concept through to proven, scalable business model.

Operational Feasibility (BRL 4): Requires integration with standard venue software. Reliability is high due to a 'human-in-the-loop' correction interface that allows designers to refine AI interpretations instantly.

Data Privacy: The tool processes geometry and spatial data rather than personal information, making it low-risk for GDPR and enterprise security compliance.

Prototyping & Pilot Roadmap

Phase 1 — MVP: Develop a browser-based tool focused on recognizing basic seating blocks and stage shapes (like the 'V' and 'Grid' layouts in the sketches).

Phase 2 — Controlled Live Pilot: Partner with a boutique agency to use the tool for 'site visit speed-sketching' during venue tours for three upcoming events.

Phase 3 — Business Model Validation: Test the appetite for a per-event license vs. a SaaS model with production houses and large-scale venues.

Phase 4 — Scale: Full integration with AR goggles and mobile apps for on-site layout visualization during move-in and setup.

Strategic Launch & Market Integration

Strategic Partnerships: Partner with AV and lighting companies to integrate their gear libraries into the auto-layout feature.

Macrotrend Alignment: Addresses the shift toward 'strategic output' where clients demand data-backed spatial configurations rather than just 'aesthetic' choices.

Rollout Strategy: Lead with a case study demonstrating a 70% reduction in pre-production drafting costs for a Fortune 500 internal summit.

Next Step: Select your most complex upcoming floor plan and attempt to replicate it via hand-sketching using a basic LayoutGenius prototype to identify current recognition gaps.