

Human Enough? Where Should the USPTO Draw the Line on AI- Assisted Designs?



Our Speakers



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Three Questions for the Law

1

What does the law require?

A natural person who conceived the claimed design.

2

Where does AI make it hard?

Iterative, partly autonomous design workflows blur who settled the final appearance.

3

Should the framework change?

And who can change it: the USPTO, the courts, Congress, or only a constitutional amendment?

Our roadmap: We will start with discussing the law, then apply it to real design use cases, with a designer's perspective along the way.

The Starting Point: A Human Inventor

35 U.S.C. § 171(a)

“Whoever invents any new, original, and ornamental design for an article of manufacture may obtain a patent therefor ...”

35 U.S.C. § 171(b)

Utility-patent provisions apply to designs, “except as otherwise provided.”

35 U.S.C. § 100(f)

“Inventor” means “the individual” or individuals “who invented or discovered the subject matter of the invention.”

Thaler v. Vidal (Fed. Cir. 2022)

Inventors must be natural persons. An AI system cannot be named.

Same test for designs

“We apply the same standard of inventorship to design patents that we require for utility patents.”

Hoop v. Hoop, 279 F.3d 1004, 1007 (Fed. Cir. 2002)

Inventorship asks who conceived the design: not who owns it, and not who ran the software.

USPTO Guidance: From 2024 to 2025

February 13, 2024 (89 FR 10043)

- Applied Pannu “significant contribution” factors to AI-assisted inventions
- Expressly covered design patents
- **Rescinded in its entirety**



November 28, 2025 (90 FR 54636)

- “No separate or modified standard” for AI-assisted inventions
- AI systems are “instruments used by human inventors”
- One human: did that person conceive the invention?
- Several humans: Pannu applies among the humans
- Expressly applies to design patents

Still open: When does a human’s review, selection, or refinement of AI output amount to conception of the claimed design?

Guidance only – there is not yet a true clarifying statute or court decision.

Conception: What Must the Human Do?

Conception is “the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention,” **complete when there is “a specific, settled idea ... not just a general goal or research plan.”**

Burroughs Wellcome Co. v. Barr Labs., 40 F.3d 1223, 1228 (Fed. Cir. 1994)

Usually not enough

- Stating a desired result
- Carrying out another person’s plan or instructions
- Merely explaining known concepts or the state of the art

Points toward conception

- Settling the specific shape, surface, or configuration claimed
- Being able to describe that design with particularity
- Sharing in conception with other humans (joint inventors)

Design twist: same threshold as utility, but AI readily models visual appearance, so its contribution to a design “may be more significant.” (USPTO OPIA Bulletin, Mar. 2026)

Human vs Machine

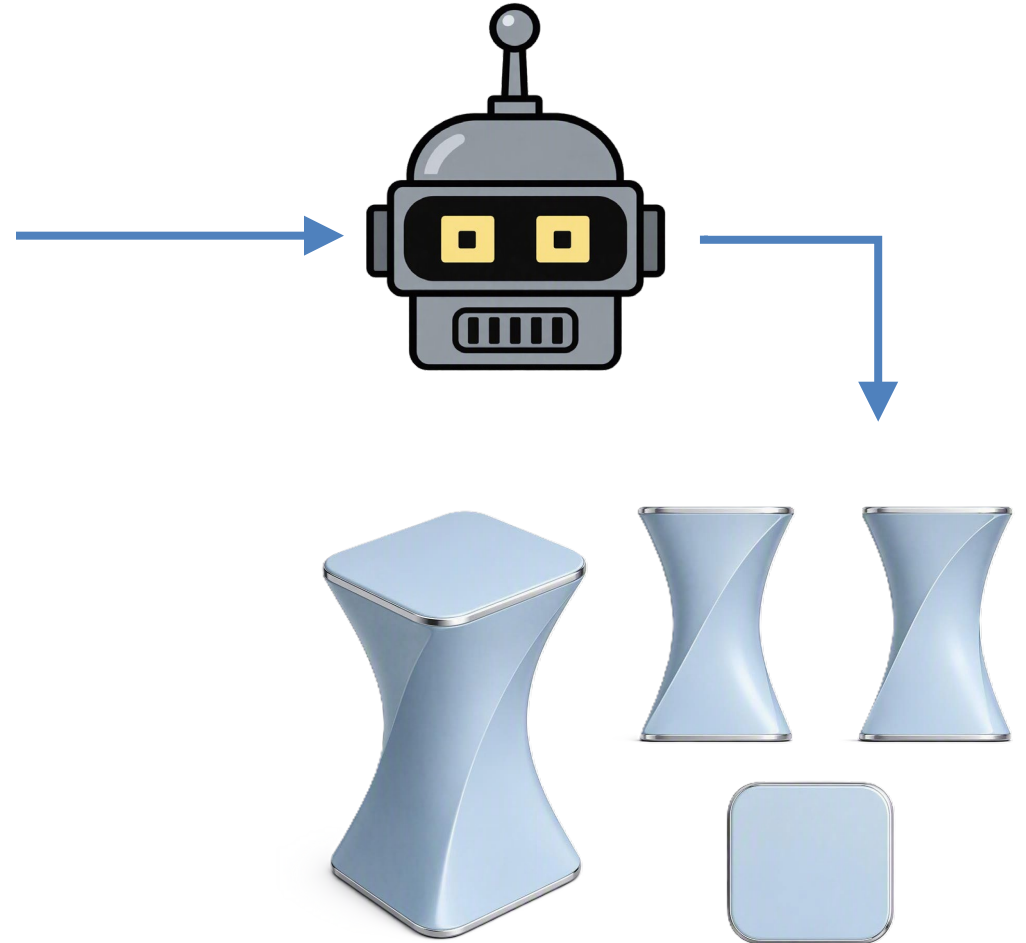


- Generate a design for a display stand, make it sleek and modern

Human vs Machine



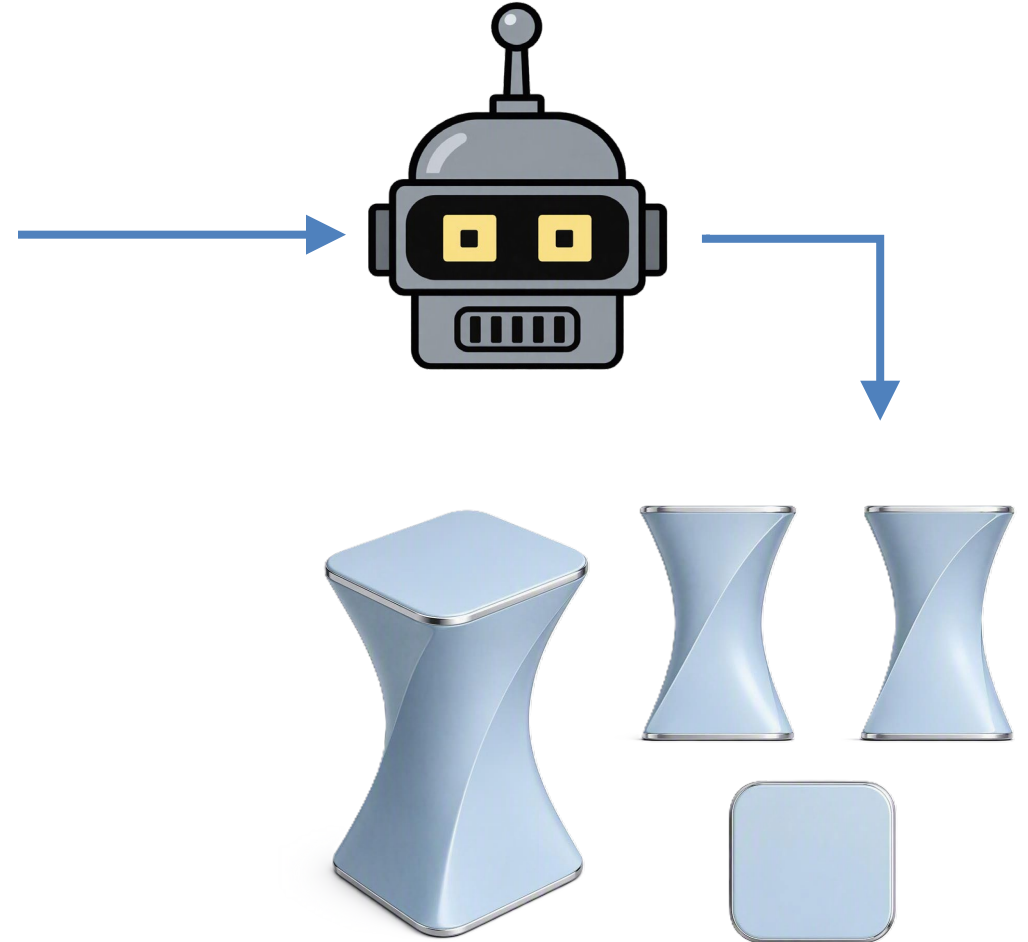
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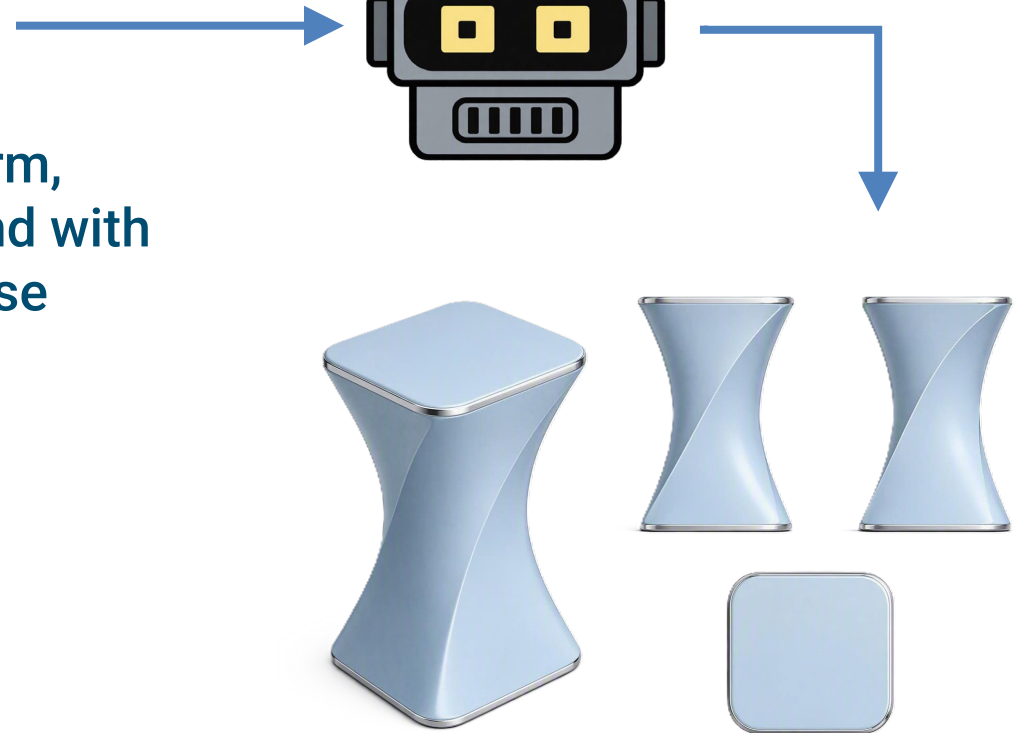
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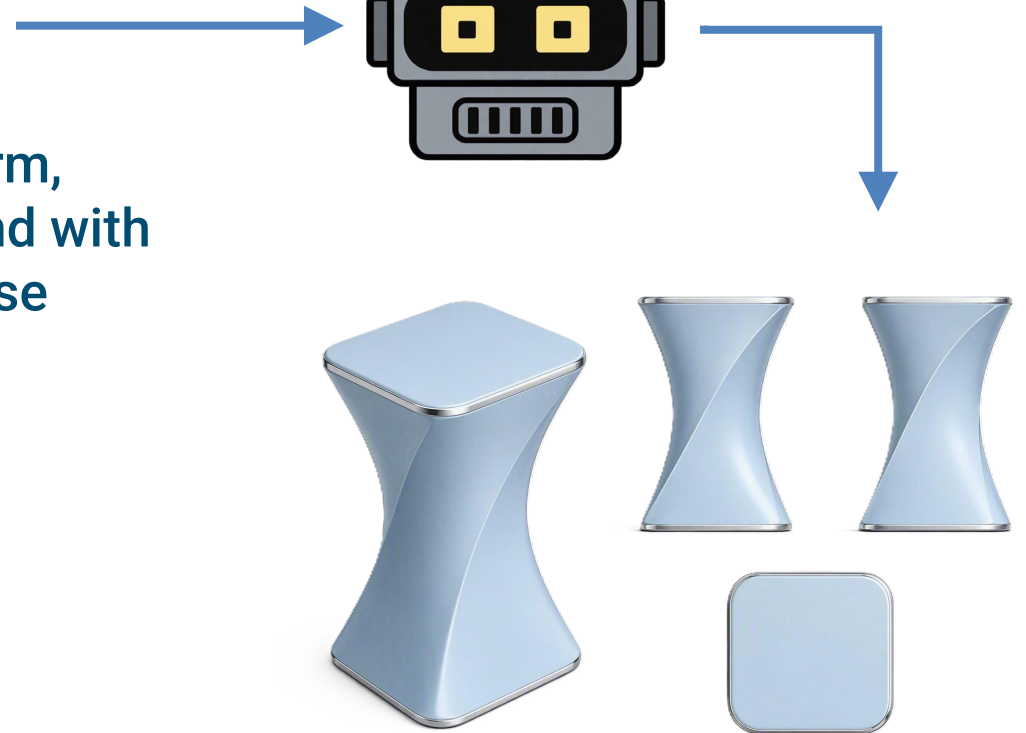
- Generate a design for a display stand, make it sleek and modern
- Give it a square base and aligned platform, with a narrow waist connecting them, and with edges flowing smoothly counterclockwise from lower corners to upper corners ...



Human vs Machine



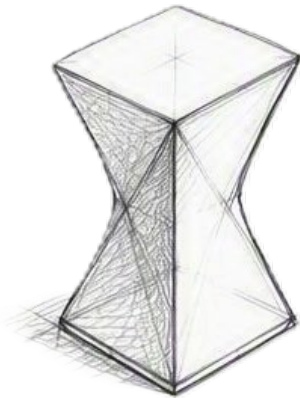
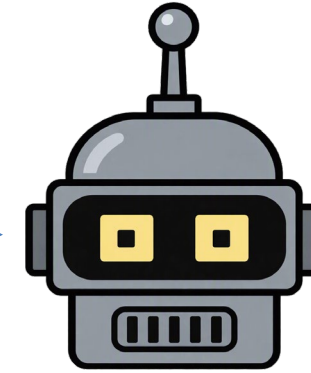
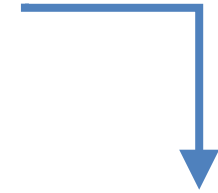
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Human vs Machine



- Generate a design for a display stand, make it sleek and modern
- Give it a square base and aligned platform, with a narrow waist connecting them, and with edges flowing smoothly counterclockwise from lower corners to upper corners ...
- Start with this:



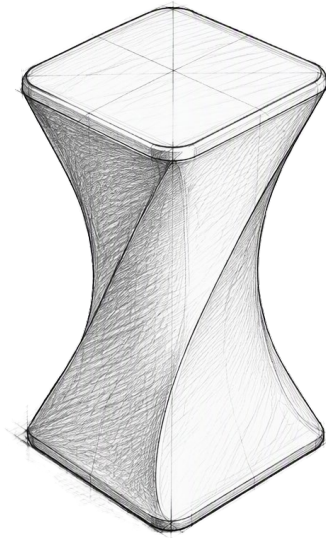
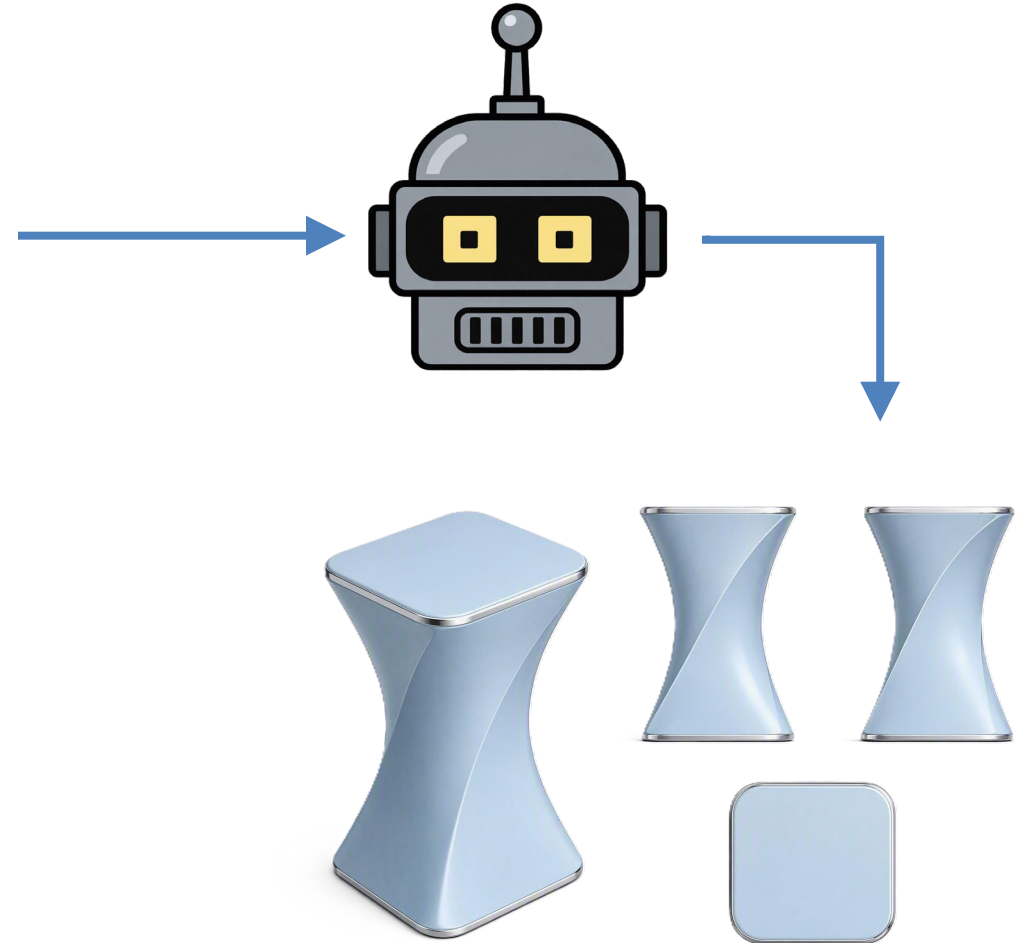
HUMAN CONTRIBUTION

MACHINE CONTRIBUTION

Human vs Machine



- Clean up this design for me, and present it with a more photorealistic appearance:



HUMAN CONTRIBUTION

MACHINE CONTRIBUTION

Where the Hard Cases Begin

Stage 1: Broad goal

“Generate a design for a display stand, make it sleek and modern”

Stage 2: Directed iteration

Detailed geometry, repeated prompts, selection among outputs

Stage 3: Human design, AI finish

Designer's sketch; AI cleans up and renders it

For every stage: What did the human conceive? When? What evidence shows it?

Why designs are harder (USPTO OPIA, Mar. 2026)

- Increasing AI autonomy
- Shifting stages of human engagement
- Conception spread across many human-AI interactions

Designer's view

Dylan Brockhaus, Garmin: where are the real design decisions made?

USPTO 2025 Guidance: Conception?



Conception is the touchstone of inventorship.

Conception is the formation in the mind of the inventor, of a **definite and permanent idea of the complete and operative invention**

Analysis of conception turns on the **ability of an inventor to describe** an invention with particularity

Conception is **complete** when the inventor has a specific, settled idea

The question is whether the natural person **possessed knowledge** of all the limitations of the claimed invention such that it is so **clearly defined in the inventor's mind** that only ordinary skill would be necessary to reduce the invention to practice

Inventorship Challenges: Two Different Problems

A. Wrong human team

- **A human inventor is omitted, or a non-inventor is named**
- Before issuance: correct under 37 CFR 1.48
- After issuance: § 256 error “shall not invalidate the patent” if it can be corrected
- **Generally curable**

B. No qualifying human conception

- **No human conceived the claimed design**
- Naming the AI is not an option (USPTO rejects under §§ 101 and 115; for designs, §§ 171 and 115)
- Section 256 fixes who is named, not whether anyone conceived
- **Potentially incurable**

Practical framing: The USPTO presumes named inventors are correct. A challenger will attack the record of who conceived what, so frame the question as “who conceived,” not “did AI help.”

Discussion: Applying the USPTO Guidelines

The USPTO 2025 Guidelines assume that AI can never contribute to conception in a legally meaningful way. It is merely a “tool that assists in the inventive process.”

- Can this make human conception **incomplete** when AI makes a contribution to the final design?
 - If so, could this **risk invalidity** for incurable improper inventorship because AI contributed to “conception” but cannot be named as an inventor?
- Is the contribution of the AI system **irrelevant** to conception, so long as the human ultimately possesses full knowledge of the design?
 - § 103: “Patentability shall not be negated by the manner in which the invention was made.”
- Does the **relative significance** of human versus AI contribution determine inventorship?
 - If so, where is the line?
- **What *should be* the right approach?**

Is This the Right Standard? Who Can Change It?

1

USPTO and courts

Interpretation

The USPTO reversed its AI approach in under two years. Evolving issue in courts.

2

Congress

Legislation

Could redefine “inventor” in § 100(f) or create a new form of protection.

3

Constitution

Limits

The IP Clause secures rights to “Authors and Inventors” for their “Discoveries.” Does AI-generated design fit?

The policy question

What should design protection reward?

- Human creativity
- Investment in developing designs
- Public disclosure

Does today's standard over- or under-protect AI-assisted design?

Discussion: Practical Takeaways

- Encourage as much human contribution as possible, at all stages: input into AI system, iteration with AI system, revision after AI system output
 - AI system as a tool following explicit instruction: low risk
 - Guided generation of a design: medium risk
 - Near-autonomous output: high risk
- BUT: don't automatically dismiss patentability for designs with some significant AI contribution. Application of the law is still unsettled
- Consider record retention practices and how they might support inventorship
 - A fuller record can help defeat an improper inventorship challenge
 - A thinner record gives a challenger less material to work with to meet their clear-and-convincing-evidence standard

Documentation: Build an Accurate Record

Why it matters

Conception “turns on the ability of an inventor to describe an invention with particularity.”

Without that, an inventor “cannot objectively prove possession” later.

90 FR 54637 (Nov. 28, 2025)

What to consider keeping

- Sketches and references
- Prompts and inputs
- Options generated and selected
- Human edits and revisions
- Who did what, and when
- Link to the drawings as filed

Tradeoffs

- Records are often discoverable and can help either side
- Adopt a consistent retention policy before any dispute
- Never selectively delete or reconstruct after the fact
- No per se duty to tell the USPTO AI was used, but material use must be disclosed

Goal: a truthful, contemporaneous record of human contribution, not a paper trail built for litigation.

Next Problem: AI and the Prior-Art Landscape

Volume	AI may produce “a potential flood of incremental variations of known designs.”	Status	Open question whether a variation “solely generated by AI” is prior art, and whether human publication changes the answer.
Findability	More disclosures are harder to find; AI search may close the gap. USPTO AI similarity search is mandatory only for utility and plant applications.	Obviousness	After LKQ, AI-automated tweaks to prior designs “may be challenged as predictable or trivial.”

Sources: USPTO OPIA Bulletin (Mar. 2026); USPTO Similarity Search Memorandum (Oct. 24, 2025)

Up next: Daniel tests the framework on design scenarios, from easy to hard.

Thank you.

