

PatentPulse AI — Daily Brief

October 19, 2026 • Top 10 newly published USPTO applications in AI, quantum, biotech, energy & robotics
• For founders, VCs & IP counsel

TOP PICK TODAY

MOCK thesis: Quantum error

Quantum error correction scheme using bosonic cat qubits with reduced ancilla overhead

Applicant: Northstar Quantum Systems, Inc.

MOCK: IonQ and peers should evaluate licensing or partnership with Northstar Quantum Systems, Inc. early.

Why this score: Large step down in physical-qubit overhead from a credible small-entity hardware team; method claims tied to hardware.

Full diligence plan on the last page.

VIABILITY

9.3/10

Today at a glance

#	Application	Score	Applicant	Sector	Top acquirer
1	Quantum error correction scheme using bosonic cat qubits with reduced...	9.3	Northstar Quantum Systems, Inc.	Quantum	IonQ
2	Federated learning system for privacy-preserving training of clinical...	8.7	Meridian Health Analytics LLC	AI	Epic Systems
3	Solid-state lithium battery with machine-learning optimized composite...	8.4	Kestrel Energy Materials Corporation of...	Energy	Panasonic Energy
4	Autonomous robotic manipulator with tactile sensing and...	8.1	Ferro Robotics GmbH	Robotics	Symbotic
5	Neuromorphic inference accelerator with in-memory spiking computation...	7.8	University of Westbrook	AI	BrainChip
6	CRISPR base editor variant with reduced off-target activity for...	7.6	Helix Ridge Therapeutics	Biotech	Beam Therapeutics
7	Grid-scale forecasting system for renewable curtailment using...	7.2	—	Energy	Fluence
8	Large language model agent framework for automated patent claim...	6.9	Lexmark IP Tools Ltd	AI	Clarivate
9	Carbon capture membrane with AI-designed metal-organic framework...	6.6	Cascade Carbon Inc.	Energy	Air Liquide
10	Drone swarm coordination method for wildfire perimeter mapping under...	6.1	Skyward Response Labs	Robotics	Anduril

How to read the score. Viability is Grok's 5.0–10.0 assessment of commercial potential, moat strength, timing and defensibility, based on each application's title, applicant, CPC classes and filing date from the USPTO record (abstract when available; not claims or prosecution history). Bands: **9.0+ exceptional (rare)** • **8.0–8.9 strong** • **7.0–7.9 watch** • **<7.0 incremental**. These are published applications; claims may narrow or be rejected before grant.

Ranked applications

1. Quantum error correction scheme using bosonic cat qubits with reduced ancilla overhead

Pub. No. US20260345670A1 • App. No. 19/102340 • Filed 2025-04-03 • Published 2026-10-15

VIABILITY

9.3_{/10}

Applicant: Northstar Quantum Systems, Inc. • **Inventor:** Elena Varga +3 • **Entity:** Small • **CPC:** G06N 10/70, H03M 13/15, G06N 10/40

Why this score: Large step down in physical-qubit overhead from a credible small-entity hardware team; method claims tied to hardware.

Strategic implication: MOCK: IonQ and peers should evaluate licensing or partnership with Northstar Quantum Systems, Inc. early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	IonQ, Rigetti Computing, Quantinuum, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.
Diligence questions	• Is the applicant venture-backed? • Is there experimental data in the spec? • Any related PCT filings?

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2. Federated learning system for privacy-preserving training of clinical diagnostic models across hospital networks

VIABILITY

8.7_{/10}

Pub. No. US20260345671A1 • App. No. 19/102341 • Filed 2025-04-04 • Published 2026-10-15

Applicant: Meridian Health Analytics LLC • **Inventor:** Rahul Desai +5 • **Entity:** Regular (large) • **CPC:** G16H 50/20, G06N 3/098, G06F 21/62

Why this score: Clear buyer pull from hospital networks; moat moderate because federated averaging prior art is dense.

Strategic implication: MOCK: Epic Systems and peers should evaluate licensing or partnership with Meridian Health Analytics LLC early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	Epic Systems, Philips Healthcare, GE HealthCare, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.
Diligence questions	• Is the applicant venture-backed? • Is there experimental data in the spec? • Any related PCT filings?

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3. Solid-state lithium battery with machine-learning optimized composite cathode microstructure

Pub. No. US20260345672A1 • App. No. 19/102342 • Filed 2025-04-05 • Published 2026-10-15

VIABILITY

8.4/10

Applicant: Kestrel Energy Materials Corporation of America and Affiliated... • **Inventor:** Hiro Tanaka +8 • **Entity:** Regular (large) • **CPC:** H01M 4/131, H01M 10/0562, G06N 20/00 +2

Why this score: Materials claims with measurable density gains; large OEM buyer pool but crowded solid-state field.

Strategic implication: MOCK: Panasonic Energy and peers should evaluate licensing or partnership with Kestrel Energy Materials Corporation of America and Affiliated Research Holdings early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	Panasonic Energy, LG Energy Solution, QuantumScape, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.
Diligence questions	• Is the applicant venture-backed? • Is there experimental data in the spec? • Any related PCT filings?

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4. Autonomous robotic manipulator with tactile sensing and vision-language grounding for warehouse picking

Pub. No. US20260345673A1 • App. No. 19/102343 • Filed 2025-04-06 • Published 2026-10-15

VIABILITY

8.1/10

Applicant: Ferro Robotics GmbH • **Inventor:** Lena Hoffmann +2 • **Entity:** Small • **CPC:** B25J 9/16, B25J 13/08, G06V 20/52

Why this score: Integrates tactile feedback with VLM grounding; warehouse automation demand is strong.

Strategic implication: MOCK: Symbotic and peers should evaluate licensing or partnership with Ferro Robotics GmbH early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	Symbotic, Ocado Group, Zebra Technologies, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.

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5. Neuromorphic inference accelerator with in-memory spiking computation for edge devices

Pub. No. US20260345674A1 • App. No. 19/102344 • Filed 2025-04-07 • Published 2026-10-15

VIABILITY

7.8/10

Applicant: University of Westbrook • **Inventor:** Amara Okafor +1 • **Entity:** Micro • **CPC:** G06N 3/063, G11C 11/54

Why this score: Academic filing with interesting efficiency claims; commercialization path unclear.

Strategic implication: MOCK: BrainChip and peers should evaluate licensing or partnership with University of Westbrook early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	BrainChip, Synopsys, Arm, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.

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6. CRISPR base editor variant with reduced off-target activity for hepatic gene therapy

Pub. No. US20260345675A1 • App. No. 19/102345 • Filed 2025-04-08 • Published 2026-10-15

VIABILITY

7.6/10

Applicant: Helix Ridge Therapeutics • **Inventor:** Sofia Marquez +4 • **Entity:** Small • **CPC:** C12N 9/22, C12N 15/113, A61K 48/00

Why this score: Valuable if specificity data holds; heavy CRISPR patent thicket raises FTO risk.

Strategic implication: MOCK: Beam Therapeutics and peers should evaluate licensing or partnership with Helix Ridge Therapeutics early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	Beam Therapeutics, Intellia Therapeutics, Vertex, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.

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7. Grid-scale forecasting system for renewable curtailment using transformer-based weather models

Pub. No. US20260345676A1 • App. No. 19/102346 • Filed 2025-04-09 • Published 2026-10-15

VIABILITY

7.2/10

Applicant: not listed

Why this score: Useful but software-heavy; likely Alice exposure and many competing forecasters.

Strategic implication: MOCK: Fluence and peers should evaluate licensing or partnership with the applicant early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	Fluence, Itron, Hitachi Energy, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.

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8. Large language model agent framework for automated patent claim drafting and prior-art search

Pub. No. US20260345677A1 • App. No. 19/102347 • Filed 2025-04-10 • Published 2026-10-15

VIABILITY

6.9/10

Applicant: Lexmark IP Tools Ltd • **Inventor:** Daniel Brooks +1 • **Entity:** Small • **CPC:** G06F 40/56, G06Q 50/18

Why this score: Crowded legal-AI space and abstract-idea risk under §101 limit defensibility.

Strategic implication: MOCK: Clarivate and peers should evaluate licensing or partnership with Lexmark IP Tools Ltd early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	Clarivate, Thomson Reuters, RELX, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.

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9. Carbon capture membrane with AI-designed metal-organic framework selectivity layer

Pub. No. US20260345678A1 • App. No. 19/102348 • Filed 2025-04-11 • Published 2026-10-15

VIABILITY

6.6/10

Applicant: Cascade Carbon Inc. • **Inventor:** Wei Zhang +6 • **Entity:** Small • **CPC:** B01D 53/22, B01D 69/12, C07F 1/08

Why this score: Promising lab result but scale-up cost and membrane durability unproven.

Strategic implication: MOCK: Air Liquide and peers should evaluate licensing or partnership with Cascade Carbon Inc. early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	Air Liquide, Linde, Honeywell UOP, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.

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10. Drone swarm coordination method for wildfire perimeter mapping under degraded communications

VIABILITY

6.1/10

Pub. No. US20260345679A1 • App. No. 19/102349 • Filed 2025-04-12 • Published 2026-10-15

Applicant: Skyward Response Labs • **Inventor:** Jordan Ellis +2 • **Entity:** Micro • **CPC:** G05D 1/695, B64U 2101/30

Why this score: Niche public-sector market; coordination methods are well-trodden.

Strategic implication: MOCK: Anduril and peers should evaluate licensing or partnership with Skyward Response Labs early.

Who should care: Deep-tech VCs, Corporate development, IP counsel

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat	MOCK: moat sentence.
Acquirers	Anduril, Teledyne FLIR, Skydio, Siemens
Key risks	Claims may narrow in prosecution, Dense prior art, Unproven at scale
Alice / §101 risk	Medium – partly software-implemented.

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Pick to Act On

One-page diligence plan for today's highest-ranked published application.

MOCK thesis: Quantum error Quantum error correction scheme using bosonic cat qubits with reduced ancilla overhead

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9.3/10

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Why this score: Large step down in physical-qubit overhead from a credible small-entity hardware team; method claims tied to hardware.

Strategic implication: MOCK: IonQ and peers should evaluate licensing or partnership with Northstar Quantum Systems, Inc. early.

Investment thesis	MOCK: commercial potential sentence.
Why now	MOCK: why-now sentence.
Moat & defensibility	MOCK: moat sentence.
Alice / §101 risk	Medium – partly software-implemented.
Est. market size	\$2.1B by 2031 (model estimate, unverified)
Potential exit value	\$150M–\$600M (model estimate, unverified)
Target buyers	IonQ, Rigetti Computing, Quantinuum
Acquirers to watch	IonQ, Rigetti Computing, Quantinuum, Siemens

Do this next (3–5 days)	• Is the applicant venture-backed? • Is there experimental data in the spec? • Any related PCT filings? • What is the priority date, and how many independent claims are likely to survive Alice/Mayo analysis? • Are continuation or divisional applications pending? • What is the filing footprint beyond the USPTO (PCT, EP, CN, JP)?
Key risks	• Claims may narrow in prosecution • Dense prior art • Unproven at scale
Playbook by role	• VCs / founders: identify the assignee; if it is a startup, explore licensing or an early investment conversation. • IP counsel: pull the published claims and file wrapper; assess freedom-to-operate and continuation strategy. • Strategic buyers: add to the watchlist and track prosecution; claims may change before grant.

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