



MarketVector™ Humanoid & Robotics Actuators Index

Picks and Shovels Exposure to Physical Artificial Intelligence
September 2026

Introducing MarketVector™ Humanoid & Robotics Actuators Index

Tracking the technologies that make robots move

PICKS-AND-SHOVELS EXPOSURE TO PHYSICAL AI

MarketVector™ Humanoid & Robotics Actuators Index (MVACT) tracks the motion layer of physical AI — the servo motors, gearboxes, actuators and controllers that make robots move.

540,000+

industrial robots installed in 2024 alone — and demand is still scaling.

- Component suppliers earn revenue no matter which humanoid platform wins.
- Falling unit costs keep widening the market for automation.
- The supply chain is mature, global and shipping at volume today.
- The near-term prize is industrial productivity, not consumer novelty.

Learn more > [MVACT](#)

The picks-and-shovels thesis

MVACT buys the components layer — servo motors, actuators, and precision reducers that every humanoid needs to move.

01

Platform-Agnostic

Servo motors, reducers, ball screws, and encoders are required by every humanoid design — from Tesla Optimus to Figure and Agility Robotics. Component suppliers earn revenue regardless of which robot wins.

02

Already Scaling

542,000+ industrial robots deployed in 2024. The supply chain for precision motion components is mature, global, and running at volume today — the picks-and-shovels trade is already live.

03

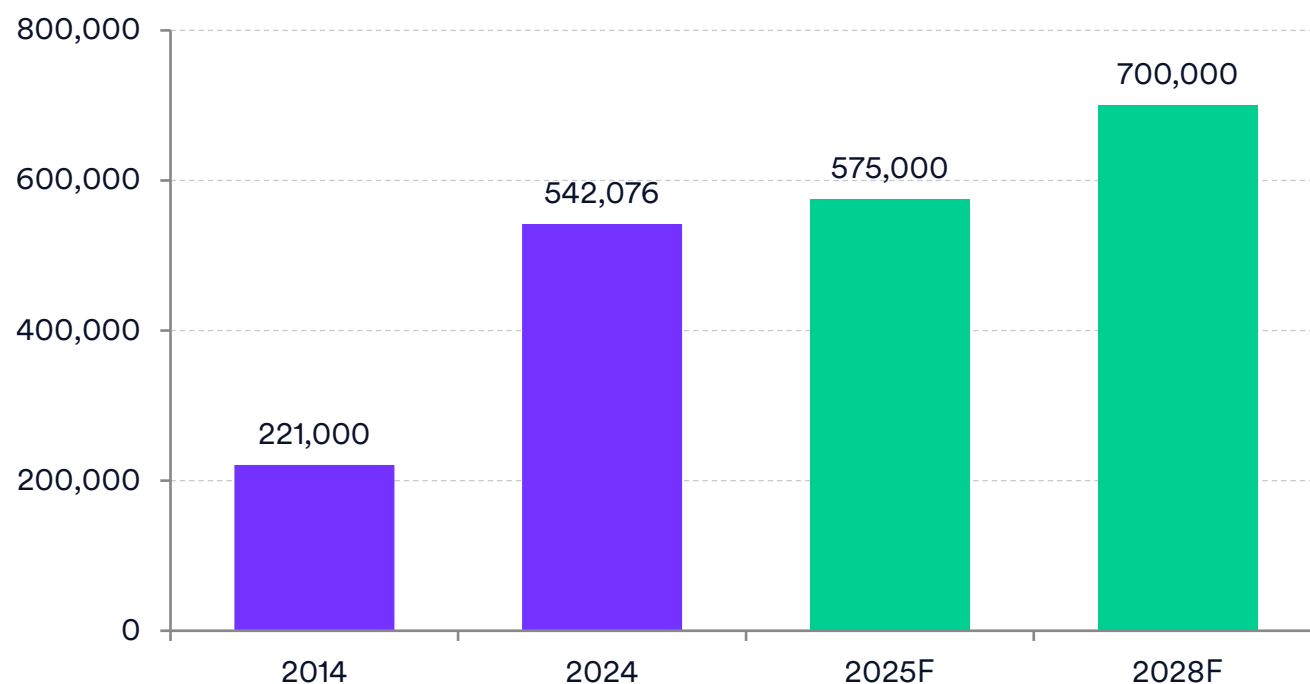
Cost-Driven Adoption

As unit costs fall from ~\$200K toward \$50K by 2050, payback periods shorten and the task set expands. Each new robot built — at any price — means revenue for the motion layer.

Global robot installations have more than doubled in a decade

Every installation drives demand for actuators, servo motors, and precision reducers. IFR forecasts 700K+ by 2028.

Global Annual Industrial Robot Installations (units)



4.66M

robots in global
operational stock (2024)

74%

of 2024 deployments
from Asia

+9%

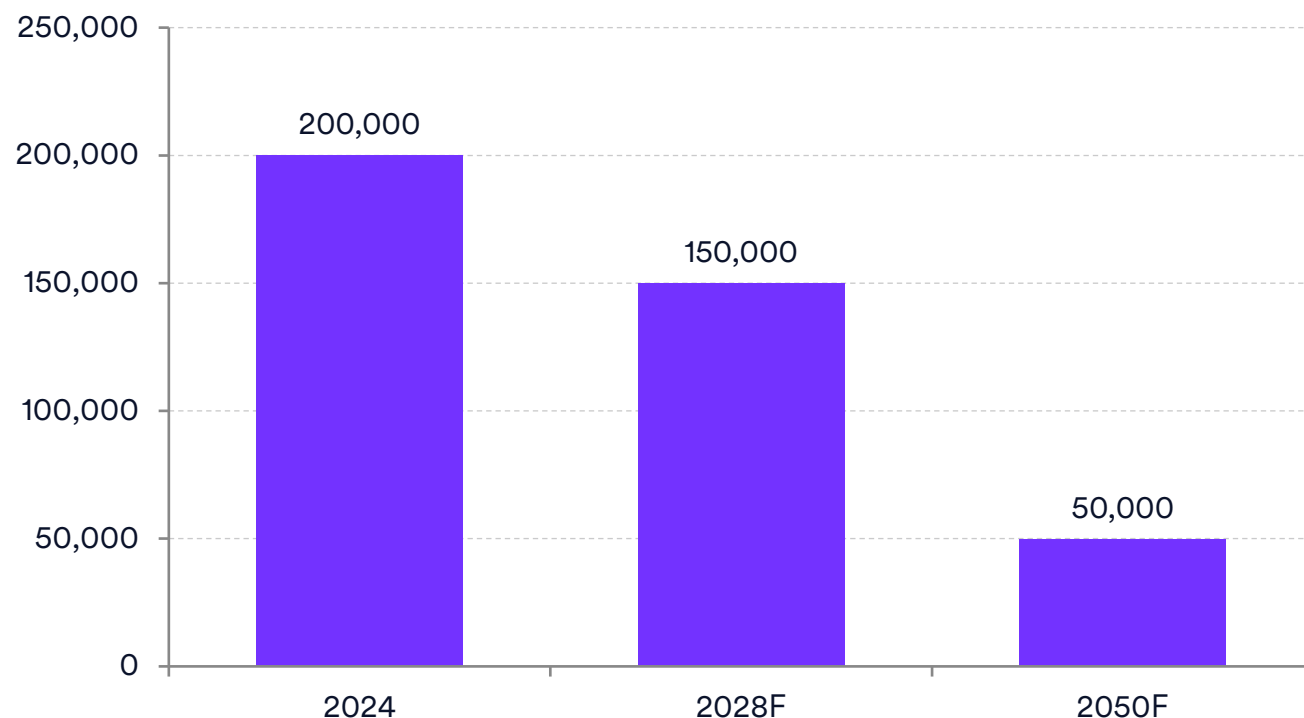
year-over-year growth
in operational stock

Source: International Federation of Robotics, World Robotics 2025 (25 Sep 2025). 2025F and 2028F are IFR forecasts — estimates only.

Humanoid costs could fall ~75% as technology scales

As robot prices drop, deployment broadens — and every unit built requires the same motion components. The picks-and-shovels opportunity scales with adoption, not price.

Estimated humanoid unit cost, higher-income markets (USD)



Higher-income markets

\$200K today → \$50K by 2050
(Morgan Stanley estimate)

Lower-income markets

Chinese supply chains could drive prices as low as ~\$15K by 2050

Increase in cheaper units

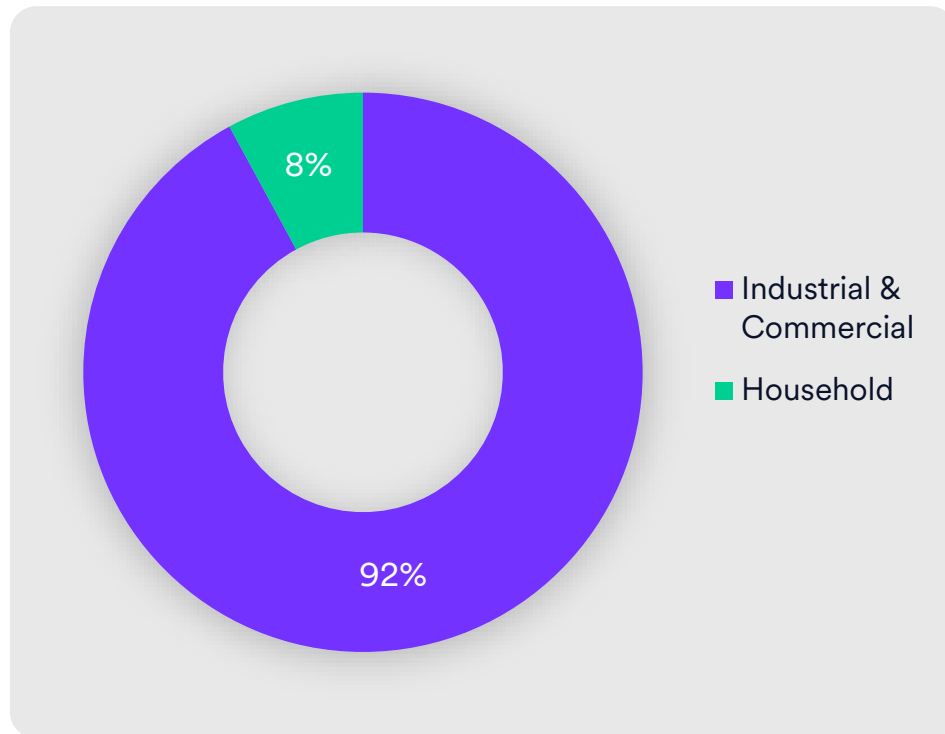
Cost declines come largely from the components: actuators, gearboxes, sensors and controllers scaling into volume manufacturing

Source: Morgan Stanley Research, "Humanoid Robot Market Expected to Reach \$5 Trillion by 2050." All cost figures are estimates; label as forecasts on the slide.

About 9 in 10 humanoids could be deployed commercially by 2050

The commercial use case is established. Component suppliers earn revenue per robot shipped — industrial scale comes first, consumer follows.

Forecast humanoid deployment in 2050 (millions of units)



1 Billion +

Humanoids projected in use by 2050

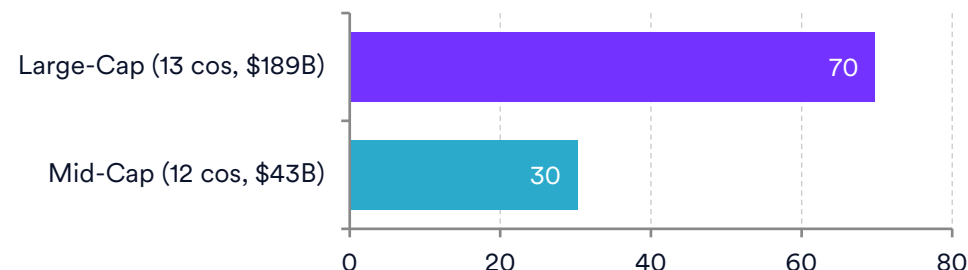
- ~930M for industrial & commercial use (≈92%)
- ~80M in households (≈8%)
- Gradual adoption until mid-2030s, then accelerates
- First use cases: logistics, manufacturing, inspection
- Payback period drives adoption — cost & reliability decide

Source: Morgan Stanley Research, "Humanoid Robot Market Expected to Reach \$5 Trillion by 2050." Forecast — estimates only.

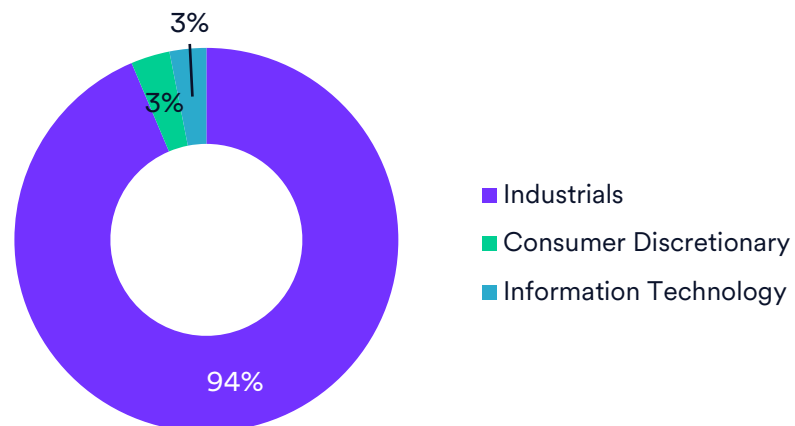
MVACT: providing established balance sheets and global distribution.

Country	Count	Weight
Japan	8	41%
United States	5	22%
China	6	14%
South Korea	3	8%
Taiwan	2	9%
Sweden	1	6%
Total	25	100%

Market Cap Breakdown (%)



Sector Weight



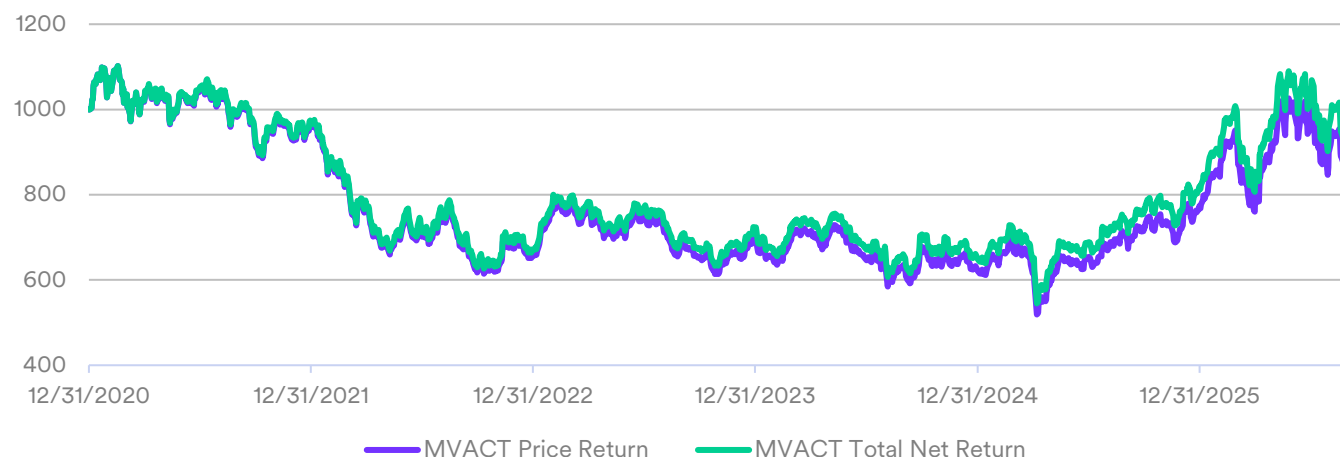
Index Fundamentals	
P/E (incl. neg.)	44x
P/E (excl. neg.)	33x
Price/Book	2.8x
Div Yield	1.2%

Source: MarketVector Indexes. As of latest quarterly review. Total index market cap ~\$231.6B USD. 25 components.

MVACT: Index performance

Strong near-term momentum, delivering double-digit returns over 1- and 3-year periods as robotics investment accelerated globally.

Performance since inception



+11%

YTD Total Net Return

+21%

1 Year Total Net Return

+30%

3 Year Total Net Return

Period	Price Return	Total Net Return
Year—to-Date	11%	11%
1 Year	21%	22%
3 Year	26%	31%
5 Year	-16%	-11%
Since Inception (Dec 2020)	-15%	-10%

Source: MarketVector Indexes. Performance as of 16 Sep 2026. Fundamentals updated monthly. Past performance is not a guarantee of future results.

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Inspiration made investable

MarketVector™ goes beyond the traditional to turn your vision into a comprehensive, investable index solution.

With a track record of breaking new ground,
our solutions measure and capture
Performance with unparalleled precision,
Giving you an edge in the market.

sales@marketvector.com

5G.

Crypto.

Global logistics.

Semiconductors.

Quantum computing.

The undefined.

The uncharted.

The impossible.

Indexed.

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