

components that allow robots to move.

The other half of the index, he said, is made up of the "end market" or applications — the applications consist of end-use robotics.

"There you see where robotics is penetrating different areas of the economy. Industrial manufacturing all the way to logistics automation, health care, consumer products, energy, precision agriculture and even into 3D printing and surveillance," explained Briggs.

Star-studded strategic advisory team

To create the index, ROBO Global tapped into a panel of experts, mainly Ph.Ds, who are entrepreneurs, academics and rock stars in the RAAI universe. Today, there are 10 advisors who augment a full-time team that goes out and identifies potential stocks for the index.

Kiva Systems co-founder Raffaello D'Andrea is on the advisory board and has strong street cred — he sold Kiva to Amazon.com Inc (NASDAQ:AMZN) in 2012. Kiva's robots automate the picking and packing at Amazon warehouses. The robots — 16 inches tall and almost 320 pounds — can move at 5 mph, hauling packages that weigh up to 698 pounds.

READ: Top roboticist Daniela Rus joins ROBO Global advisory board

Notably, ROBO Global recently expanded its advisory board to include well-known roboticist Daniela Rus, the director of MIT's groundbreaking Computer Science and Artificial Intelligence Lab (CSAIL).

"The ROBO Global advisory board is a dream team of robotics and AI professionals who are on the front lines of these disruptive technologies," said Rus, who is an Engelberger Robotics award winner.

It's the team that ROBO Global has been able to put together that differentiates the product and gives it the ability to really understand where the puck is going in robotics and artificial intelligence.

Diversification is a battle cry

From a standing start five years ago, ROBO Global now has a database of 1,000 companies compiled with the help of its in-house team and the strategic advisory board. It has a proprietary database of 300 publicly traded companies that they use for selecting companies for the index. In addition, the database includes 700 private companies, as ROBO finds it helpful to monitor for IPOs, acquisitions and technology breakthroughs.

"I think what's compelling is that collectively you end up with an index of 12 subsectors, 87 different companies from 15 countries. It is global in nature: 40% US, 60% international so it is very diverse," said Briggs.

"The result is a broad index. We've captured the entire value chain, allowing the investor to experience the smoothest, least volatile ride as the industry continues to expand," he added.

In the ROBO world the pure-play stocks — companies such as Intuitive Surgical (NASDAQ:ISRG) and iRobot Corp (NASDAQ:IRBT) — have an approximate 2% weighting in the 87-strong ROBO index. The hybrids are individually at about 1%.

Quarterly updates see the weightings of all companies reset to approximately 2% and approximately 1% also making way for more companies to join. This 'sell-high-buy-low' approach has served the ROBO Global index well and helped contribute to a 46% rise in its value last year.

Separating out the wheat from the chaff

Potential index members pass through a series of quality filters before becoming eligible for index membership.

"We'll start with 300 companies and put them through a few of the market filters: revenue purity, classification fit, minimum revenue threshold. We do have an Environmental, Social and Governance policy. We apply three additional

screens: minimum market cap, liquidity, limit the percentage of ownership, and the free float of the companies," said Briggs.

As a result, it's a very stable index and investors typically don't see more than two or three changes to the portfolio in a quarter. Small and mid-cap companies comprise at least 75% of the index.

ROBO index popular with ETFs

Since it's the first major index in the robotics, automation and AI space, the ROBO index has several low-cost ETFs tied to it at the hip.

Assets under management that track the ROBO Global index add up to US\$3.8bn and include ETFs in the US, London, and licensed products in Asia (two in Korea), one in Australia, and a relationship in Taiwan.

ROBO Global provides its expertise to the ROBO Global Robotics and Automation Index ETF (NYSEARCA:ROBO) which traded 0.69% higher to US\$40.51 midday Tuesday. It has US\$2.1bn assets under management and the ETF provider is Exchange Traded Concepts.

ROBO also provides its expertise to Legal & General Investment Management's US\$1.2bn ROBO Global Robotics and Automation GO UCITS ETF.

These index ETFs seek to track the ROBO Global benchmark index as closely as possible and minimize tracking error.

"We have several companies in the index that provide the picks and shovels to Amazon," said Briggs.

The top holdings in the index include iRobot Corp, Oceaneering International, Brooks Automation Inc (NASDAQ:BRKS), Cognex Corp (NASDAQ:CGNX) and Intuitive Surgical Inc (NASDAQ:ISRG).

Logistics automation has been the best-performing subsector in the index as it's anchored by explosive growth in e-commerce. Healthcare is also driving growth with robotic surgeries becoming more widely adopted.

Fortunately for investors, since ROBO Global offers "a multi-decade growth opportunity" there's no such thing as being late to the party.

"We are in the first inning of this significant inflection point in what I would call the growth curve of RAAI," said Briggs.

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