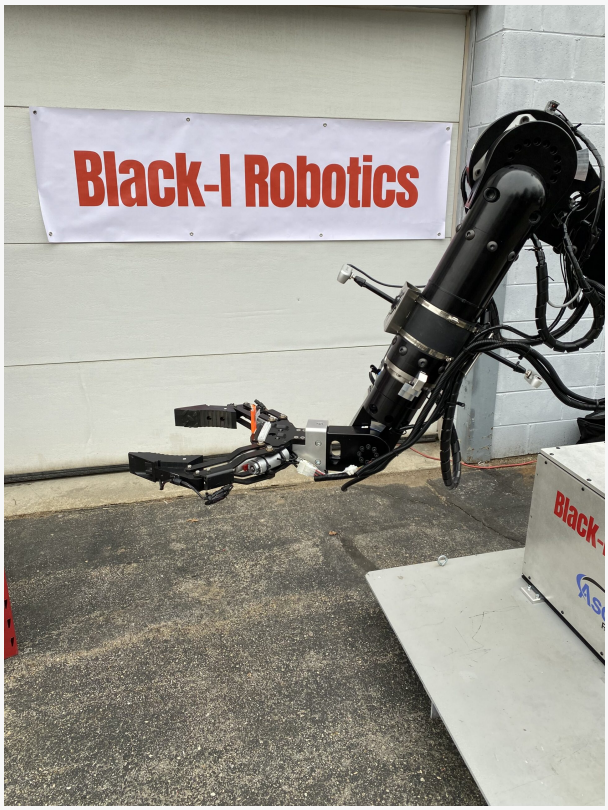
Black-I Robotics Introduces Revolutionary Fullscope Mobile Heavy Lift Arm at Materials Handling Trade Show Modex

Breakthrough heavy lift arm originally developed for DARPA, the U. S. government R&D national security organization



Black-I's heavy lift arm has a payload four times heavier than standard arms.

TYNGSBOROUGH, MA, USA, March 28, 2022 /EINPresswire.com/ -- Black-I Robotics, the well-known Boston-area robotics company, is demonstrating its breakthrough autonomous Fullscope Mobile Heavy Lift Arm at Modex, the materials handling show that runs from today through March 30 in Atlanta, according to CEO Brian Hart. Black-I's booth number is C-4788.

The revolutionary heavy lift pick and place arm stemmed from a project that DARPA awarded to Black-I. DARPA (Defense Advanced Research Projects Agency) is the U. S. Government agency charged with making pivotal investments in breakthrough technologies for U. S. national security.

"DARPA asked us to develop a powerful, manpower-saving autonomous arm that could pick up heavy munitions and other objects weighing from 50 to 100 pounds and place them at a precise point rapidly, safely, reliably, even in the most difficult of environments," according to Hart. "That meant an arm that lifts four times the weight of arms currently on the market. We delivered, and then pivoted to the commercial market, where warehouse and transportation companies alone within the logistics sector have approximately 500,000 job openings today, and a worsening situation.

GETTING WORK DONE WITHOUT THE WORKERS

Hart says that manpower challenges adversely affecting logistics are unique, pointing out that a large proportion of the hundreds of thousands of workers in the industry spend the day, lifting, pushing, pulling heavy objects and equipment.

"It's literally backbreaking work," he says. "Warehouse workers have a high incidence of injuries. When workers are hurt, they miss time, sometimes lots of time. Some sue. Worker comp payments are high. Morale is often low. Our arm is a solution to every one of those problems. Some estimates suggest that the Black-I Robotics Fullscope Mobile Heavy Lift Arm can replace up to two full time equivalents per shift.

The Black-I arm can be customized to lift objects of 100 pounds or more and place them precisely where designated.

“Robots move fast, pick and place precisely, and never get injured, never take a day off, never ask for a raise. They solve manpower shortages while increasing productivity and cutting costs. They free employees to tackle jobs that take more brains than brawn, which also boosts worker satisfaction and morale. And, critically, with our unique arm, enable operations staff to easily configure and manage the robot as layout and item packaging changes within, for example, a warehouse, speeding deployment and significantly reducing total cost of operation. Our revolutionary arm is exactly what Facility Managers and their staff have been hoping for.”

> The supply chain is desperate for workers. Our breakthrough robotic arm has a 100+ lb. payload and breakthrough object-avoidance vision that keeps workers safe and productive in dynamic workplaces.”
>
> *Brian Hart, CEO*

Hart says that to improve the original DARPA arm, Black-I Robotics partnered with Ascend Robotics, experts in materials handling, to develop an AI-based integrated package with multiple sensors and cameras featuring 2D and 3D live data streams and other electronics that enable the arm to "see" a workplace and avoid any and all objects, whether human or machine, move along an optimum path to a shelf, for example, precisely pick a designated item, and place it on a pallet. Then do it again. And again.

PARTNERING WITH AMR COMPANIES AND SYSTEMS INTEGRATORS

The Fullscope Arm can be integrated with AMRs and other equipment, exchanging critical data, making each more efficient. It can be mounted or dismounted in literally minutes from manned

and unmanned vehicles, including trucks, backhoes and forklifts. Another important economic advantage is that it protects a company’s existing and future investments in a wide range of available AMRs as well as autonomous forklifts and pallet jacks to come. In fact, systems integrators are sure to take advantage of the special capabilities of the Fullscope Arm to develop a range of advanced and special capabilities to change the face of the warehouse, distribution center and manufacturing plant while generating substantial new revenue for themselves.

"Our theme at Modex is 'Suddenly it's 2025' because no one in our industry expected an arm like ours to come to market for many years," Hart says. "There clearly is nothing like it." The Fullscope Heavy Lift Arm will be demonstrated continuously at the Black-I Robotics booth. Come on by!

Black-I Robotics has been designing and developing robots and robotic devices since 2008. It has a wide range of customers and partners, including the Department of Defense, the Department of Homeland Security, the Army Corps of Engineers, public sector companies such as Raytheon, and a dozen universities, including MIT, Princeton and Carnegie Mellon. Ascend Robotics, located in Cambridge, MA, was founded in 2016 and serves Global 500 manufacturers requiring precise, secure parts-handling, enabling customers to amplify the mission of their workforce. Black-I's web address is www.blackirobotics.com Ascend Robotics website address is www.ascendrobotics.com

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