



Bionics Turn Humans Into Super-Strong Workers And Soldiers

The race is on to develop various types of exoskeletons to turn ordinary human workers into supermen or superwomen. This technology was originally spawned by the military in their quest for super-soldiers on the battlefield. □ TN Editor

Iron Man [suits](#) might not yet be commonplace, but companies from [Ford \(F\)](#) to [Lowe's \(LOW\)](#) are testing new mechanical exoskeletons to enhance — and extend — human strength.

Earlier this month, Ford said it was testing four models of exoskeletal arms to help ease fatigue for assembly line workers.

Hyundai last year announced it was working on a [wearable robot suit](#). And Germany's Audi ([VLKAY](#)) began testing [robotic assist technology](#) for production plants in 2015. Universities from the [Massachusetts Institute of Technology](#) to [U.C. Berkeley](#) are also developing technology, mostly

inspired by [potential medical use](#).

“My job entails working over my head, so when I get home my back, neck and shoulders usually hurt,” said Paul Collins, an assembly line worker at Ford’s Michigan Assembly Plant, in a statement released by Ford. “Since I started using the vest, I’m not as sore, and I have more energy to play with my grandsons when I get home.”



The potential for expansion into other industries like construction or loading and unloading of goods is becoming more realistic as [scientists rethink older designs](#), Scientific American [reported earlier this year](#).

The global market for bionic devices may rise to \$12.1 billion by 2026, up from \$3.2 billion last year, when the US had almost 40 percent of the global market, according to report from [BCC Research](#) earlier this year.

Ekso Bionics ([EKSO](#)) announced last week that it’s providing technology to Ford, a device called the EksoVest, and its stock has climbed since then. That’s even though it reported selling fewer units than some analysts expected when it released third-quarter results earlier this month.

The fledgling company, which listed on the Nasdaq stock exchange last year, has \$33.44 million in cash, enough to fund operations for more than a year, according to its quarterly filing with the US Securities and Exchange Commission.

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Massive US Military Spying Archive Left Wide Open In Cloud

Military intelligence is full of Technocrats who mine big data anywhere and everywhere that it can be found, in this case, it is from social media. Why does the military need to scrape and save billions and billions of social media postings? □ TN Editor

Three misconfigured AWS S3 buckets have been discovered wide open on the public internet containing “dozens of terabytes” of social media posts and similar pages - all scraped from around the world by the US military to identify and profile persons of interest.

The archives [were found](#) by [veteran security breach hunter](#) UpGuard’s Chris Vickery during a routine scan of open Amazon-hosted data silos, and these ones weren’t exactly hidden. The buckets were named centcom-backup, centcom-archive, and pacom-archive.

CENTCOM is the common abbreviation for the US Central Command, which controls army operations in the Middle East, North Africa and Central Asia. PACOM is the name for US Pacific Command, covering the rest of southern Asia, China and Australasia.

Vickery told *The Register* today he stumbled upon them by accident

while running a scan for the word “COM” in publicly accessible S3 buckets. After refining his search, the CENTCOM archive popped up, and at first he thought it was related to Chinese multinational Tencent, but quickly realized it was a US military archive of astounding size.

“For the research I downloaded 400GB of samples but there were many terabytes of data up there,” he said. “It’s mainly compressed text files that can expand out by a factor of ten so there’s dozens and dozens of terabytes out there and that’s a conservative estimate.”

Just one of the buckets contained 1.8 billion social media posts automatically fetched over the past eight years up to today. It mainly contains postings made in central Asia, however Vickery noted that some of the material is taken from comments made by American citizens.

The databases also reveal some interesting clues as to what this information is being used for. Documents make reference to the fact that the archive was collected as part of the US government’s Outpost program, which is a social media monitoring and influencing campaign designed to target overseas youths and steer them away from terrorism.

Vickery found the Outpost development configuration files in the archive, as well as Apache Lucene indexes of keywords designed to be used with the open-source search engine Elasticsearch. Another file refers to Coral, which may well be a reference to the US military’s Coral Reef data-mining program.

“Coral Reef is a way to analyze a major data source to provide the analyst the ability to mine significant amounts of data and provide suggestive associations between individuals to build out that social network,” Mark Kitz, technical director for the Army Distributed Common Ground System - Army, [told](#) the Armed Forces Communications and Electronics Association magazine Signal back in 2012.

“Previously, we would mine through those intelligence reports or whatever data would be available, and that would be very manual-intensive.”

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Scientists Urgently Call For Ban On Killer Robots

Technocrats build because they can, not because of a pressing social need and thus, autonomous killer robots are soon to be a household name. The video below is fictional, but the technology is thoroughly plausible. Since military and police forces are already investing heavily in this type of technology, it is certain to be in the hands of criminals and terrorists at some point. □ TN Editor

The movie portrays a brutal future. A military firm unveils a tiny drone that hunts and kills with ruthless efficiency. But when the technology falls into the wrong hands, no one is safe. Politicians are cut down in broad daylight. The machines descend on a lecture hall and spot activists, who are swiftly dispatched with an explosive to the head.

The [short, disturbing film](#) is the latest attempt by campaigners and concerned scientists to highlight the dangers of developing autonomous weapons that can find, track and fire on targets without human

supervision. They warn that a preemptive ban on the technology is urgently needed to prevent terrible new weapons of mass destruction.

Stuart Russell, a leading AI scientist at the University of California in Berkeley, and others will show the film on Monday during an event at the United Nations [Convention on Conventional Weapons](#) hosted by the [Campaign to Stop Killer Robots](#). The manufacture and use of autonomous weapons, such as drones, tanks and automated machine guns, would be devastating for human security and freedom, and the window to halt their development is closing fast, Russell warned.

“The technology illustrated in the film is simply an integration of existing capabilities. It is not science fiction. In fact, it is easier to achieve than self-driving cars, which require far higher standards of performance,” Russell said.



The military has been one of the largest funders and adopters of artificial intelligence technology. The computing techniques help robots fly, navigate terrain, and patrol territories under the seas. Hooked up to a camera feed, image recognition algorithms can scan video footage for targets better than a human can. An automated sentry that guards South Korea's border with the North draws on the technology to spot and track targets up to 4km away.

While military drones have long been flown remotely for surveillance and attacks, autonomous weapons armed with explosives and target recognition systems are now within reach and could locate and strike without deferring to a human controller. Opponents believe that handing machines the power over who lives and dies crosses a [clear moral line](#).

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Russia's New Robot Tank Will Outperform Humans

Once standardized, these robots could roll off assembly lines like automobiles; their application on the battlefield will automate the killing of humans by an order of magnitude over WWI and WWII. Technocrats invent because they can, not because there is a need. □ TN Editor

The Russian military will field a new armed tank-like robot that “outperformed” manned platforms in recent exercises at the Alabino proving grounds outside Moscow.

That’s what Col. Oleg Pomazuev told the Russian news site [“Military Review”](#) in late October. Pomazuev runs the Department of Innovation Research at the Russian military’s Main Directorate of Research Activities, or GUNID.

The robot, called the [Nerehta](#), can carry a 12.7mm or 7.62mm machine gun or an AG-30M grenade launcher. The Russian colonel did not say which manned platforms the Nerehta outperformed, but among his service’s vehicles of similar size and armament are the [BRDM reconnaissance vehicle](#) and [GAZ Tigr](#).

Russians are testing a wide variety of UGVs, from small IED-disposal robots up to large armed ones, said Samuel Bendett, an associate research analyst with the Center for Naval Analyses' International Affairs Group.

"They have also been stating for a while that their modernization and state armaments program will include high-tech and unmanned systems," Bendett said.

https://www.youtube.com/watch?time_continue=20&v=WDUPM4BBkJ8

He noted that Russian forces tested small unmanned ground vehicles, including the Nerehta-like [Platforma-M](#) during last September's Zapad-2017 exercises in Belarus.

The Russian military has also created a larger semi-autonomous tank called the [T-14](#), which sports a remotely operated turret.

Half a world away, unmanned ground vehicles are also on the mind of Gen. Mark Milley, chief of staff of the U.S. Army. Trends in autonomy and robotic battle systems are proceeding faster than many realize, Milley said Tuesday at the Army's CyCon event in downtown Washington, D.C.

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Homeland Security Warns Of Weaponized Drones And Aviation Threats

Weaponized drones in the hands of terrorists are frightening, but remember that it was the Technocrat-heavy military establishment that developed the technology in the first place. This has sparked a massive arms race throughout the world, and is naturally trickling down to terrorists. □ TN Editor

The Department of [Homeland Security](#) (DHS) issued an updated terror bulletin on Thursday highlighting the threat of weaponized drones, chemical attacks and the continued targeting of commercial aircraft.

“We continue to face one of the most challenging threat environments since 9/11, as foreign terrorist organizations exploit the internet to inspire, enable or direct individuals already here in the homeland to commit terrorist acts,” [reads the bulletin](#).

The National Terrorism Advisory System bulletin, which replaced the old color-coded system, is used to give the public and local law enforcement a summary about ongoing and potentially new terror threats.

“The current bulletin introduces unmanned aircraft systems as potential threats and highlights sustained concern regarding threats against commercial aviation and air cargo,” said DHS acting press secretary Tyler Houlton in a statement.

There’s been an “uptick in terrorist interest” in using unmanned aerial systems as weapons in the United States and other western countries, according to a senior DHS official.

These tactics have been used by terrorists on the battlefield, and the department wants to “guard against those tactics being exported to the west,” said the official.

The official said that DHS wants to be “forward leaning” about seeing what terrorists are doing overseas and tactics they might adopt in the future.

Since the last bulletin, concerns about terrorist targeting aviation sector have grown, said the official.

“[T]errorists continue to target commercial aviation and air cargo, including with concealed explosives,” reads the updated bulletin.

DHS has been implementing wide-ranging security measures for all airports and airlines that fly directly to the U.S. In June, the administration announced “enhanced screening” of passengers and their electronic devices, as well as “seen and unseen” security around the aircraft and inside the airport.

Terrorists still see “aviation as the crown jewel target,” said former DHS Secretary John Kelly, now the president’s chief of staff, at the time of the announcement.

The measures, which are being rolled out in phases, are aimed at detecting concealed explosives, insider threats and identifying suspicious passengers.

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Putin Warns Of Super Soldiers 'Worse Than Nukes' Who Feel No Fear

If governments need to regulate super-soldiers, that means that they will be the ones creating them as well. Technocrats who are invading human DNA via CRISPR technology are practicing the worst form of eugenics ever seen on the face of the earth. □ TN Editor

Vladimir Putin has claimed genetically-modified super soldiers “worse than a nuclear bomb” could soon become a reality.

The strongman Russian President spoke to a crowd of students about the prospect of an army of trained killers incapable of feeling “pain or fear” much like the characters in 1992 action movie Universal Soldier.

The normally icy-veined Putin appeared scared at the prospect of super soldiers

Putin said scientists could create Universal Soldier-style supermen incapable of feeling fear or pain

He revealed that scientists are close to breaking the genetic code which would enable them to create “a human with pre-designed characteristics”.

Speaking at a youth festival in Sochi, Putin warned of the consequences of playing God with man’s genetic code, reports The Express.

He said: “A man has the opportunity to get into the genetic code created by either nature, or as religious people would say, by the God.

“All kinds of practical consequences may follow. One may imagine that a man can create a man not only theoretically but also practically.

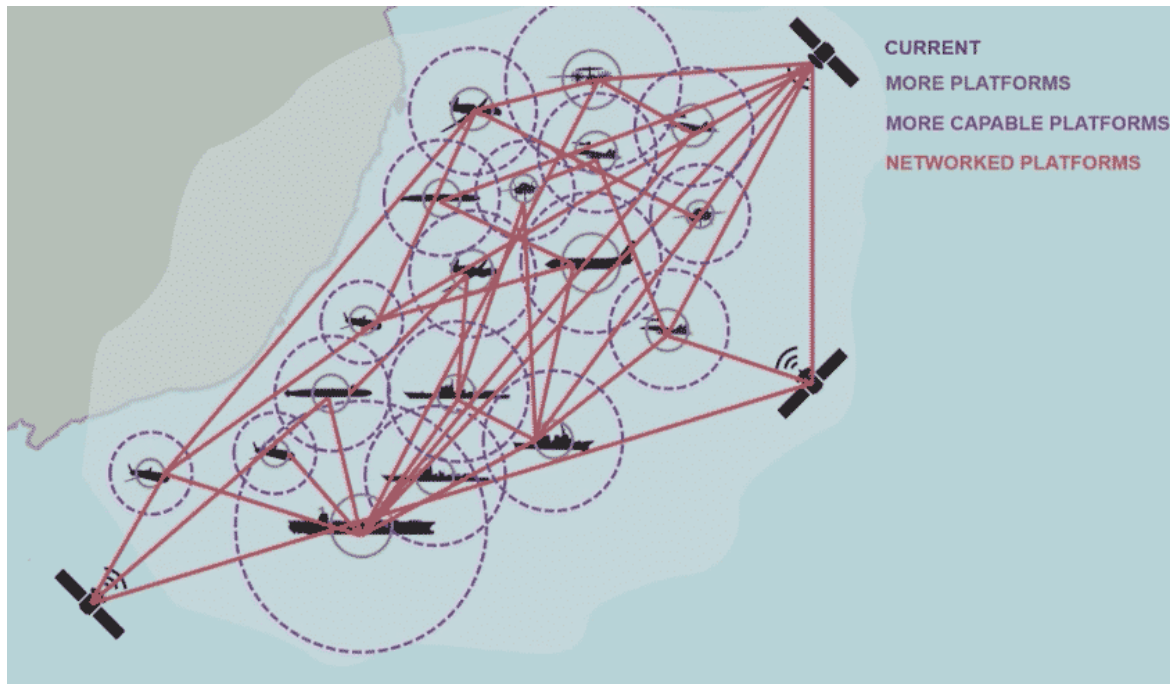
The Kremlin strongman warned governments need to regulate the creation of super soldiers.

“He can be a genius mathematician, a brilliant musician or a soldier, a man who can fight without fear, compassion, regret or pain.

“As you understand, humanity can enter, and most likely it will in the near future, a very difficult and very responsible period of its existence.

“What I have just described might be worse than a nuclear bomb.”

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The Future Of US Military: A Giant, Armed Nervous System

The global battlefield will radically change as the military connects every conceivable asset and enemy in the world. In other words, it will be a 'giant, armed nervous system.' This is the same Technocrat dream for society as a whole where everything is interconnected to mimic a human nervous system. □ TN Editor

Leaders of the Air Force, Navy, Army and Marines are converging on a vision of the future military: connecting every asset on the global battlefield.

That means everything from F-35 jets overhead to the destroyers on the sea to the armor of the tanks crawling over the land to the multiplying devices in every troops' pockets. Every weapon, vehicle, and device connected, sharing data, constantly aware of the presence and state of every other node in a truly global network. The effect: an unimaginably large [cephaloidal nervous system](#) armed with the world's most sophisticated weaponry.

In recent months, the Joint Chiefs of Staff put together the newest

version of their National Military Strategy. Unlike previous [ones](#), it is classified. But executing a strategy requiring buy-in and collaboration across the services. In recent months, at least two of the service chiefs talked openly about the strikingly similar direction that they are taking their forces. Standing before a sea of dark-blue uniforms at a September Air Force Association event in Maryland, Air Force Chief of Staff Gen. David Goldfein said he had “refined” his plans for the Air Force after discussions with the Joint Chiefs “as part of the creation of the classified military strategy.”

The future for the Air Force? The service needed to be more like a certain electric-car manufacturer.

“Every Tesla car is connected to every other Tesla car,” said Goldfein, referring to a [presentation by Elon Musk](#) about the ways his firm’s vehicles learn from their collective experience. “If a Tesla is headed down the road and hits a pothole, every Tesla that’s behind it that’s self-driving, it will avoid the pothole, immediately. If you’re driving the car, it automatically adjusts your shocks in case you hit it, too.”

Goldfein waxed enthusiastically about how Tesla was able to remotely increase the battery capacity of cars in the U.S. Southeast to [facilitate evacuation](#) before the recent hurricanes.

“What would the world look like if we connected what we have in that way? If we looked at the world through a lens of a network as opposed to individual platforms, electronic jamming shared immediately, avoided automatically? Every three minutes, a mobility aircraft takes off somewhere on the planet. Platforms are nodes in a network,” the Air Force chief said.

The idea borrows from the [“network centric warfare”](#) concept that seized the military imagination more than a decade ago. But what leaders are today describing is larger by orders of magnitude. It’s less a strategy for integrating multiple networks into operations more efficiently than a plan to stitch everything, networks within networks, into a single web. The purpose: better coordinated, faster, and more lethal operations in air, land, sea, space, and cyberspace.

So the Air Force is making broad investments in data sharing. Maj. Gen. Kimberly A. Crider, the service's [first data officer](#), is setting up a series of experimental tests in the Nevada desert at Nellis Air Force Base near Las Vegas, seeking to better understand “what happens when we actually connect into this resilient and agile network” said Goldfein. The Air Force’s current experimentation with next-generation light tactical attack aircraft are as much about hardware as networks, he said. “Not only what can I buy and what can they do, but more importantly, can they connect? Can they actually share? And can we tie it to a new network that’s based on sharable information that gets me beyond the challenges I have right now in terms of security?”

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Elon Musk Says AI Is More

Risky To World War Than North Korea

If Musk the Technocrat really thinks that AI is 'vastly more risky than North Korea', then we ought to know that his train has jumped the tracks. Simply put, Musk has a skewed view of reality. □ TN Editor

Elon Musk has said again that artificial intelligence could be humanity's greatest existential threat, this time by starting a third world war.

The prospect clearly weighs heavily on Musk's mind, since the SpaceX, Tesla and Boring Company chief tweeted at 2.33am Los Angeles time about how AI could led to the end of the world - without the need for the singularity.

His fears were prompted by a statement from Vladimir Putin that "artificial intelligence is the future, not only for Russia, but for all humankind ... It comes with colossal opportunities, but also threats that are difficult to predict. Whoever becomes the leader in this sphere will become the ruler of the world."

Hashing out his thoughts in public, Musk clarified that he was not just concerned about the prospect of a world leader starting the war, but also of an overcautious AI deciding "that a [pre-emptive] strike is [the] most probable path to victory".

He's less worried about North Korea's increasingly bold nuclear ambitions, arguing that the result for Pyongyang if they launched a nuclear missile "would be suicide" - and that it doesn't have any entanglements that would lead to a world war even if it did. His view is that AI is "vastly more risky" than the Kim Jong-un-led country.

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Supporting story

Elon Musk has warned again about the dangers of artificial intelligence, saying that it poses "vastly more risk" than the [apparent nuclear](#)

[capabilities of North Korea](#) does.

The Tesla and SpaceX chief executive took to Twitter to once again reiterate the need for concern around the development of AI, following the victory of Musk-led AI development over professional players of the Dota 2 online multiplayer battle game.

This is not the first time Musk has stated that AI could potentially be one of the most dangerous international developments. [He said in October 2014](#) that he considered it humanity's "biggest existential threat", a view he has repeated several times while making investments in AI startups and organisations, including OpenAI, to "keep an eye on what's going on".

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American War Zone: Military Drones To Replace Police Helicopters By 2025

The green light is on for military drone makers to transform America's police force into a military complex similar to Afghanistan. Comprehensive geospatial intelligence will become ubiquitous, tracking every moving object on the ground. They will be equipped with super-high resolution cameras and AI-based facial recognition systems that will be able to identify a mole on your left cheek. License plate readers? Child's play. This is no longer an argument over privacy, it is now an argument over total suppression of freedom and liberty. In Technocracy language, it is the ultimate in Scientific Dictatorship. □ TN Editor

By 2025, enormous military-style drones - close relatives of the sort made famous by counterterrorism strikes in Afghanistan and Iraq - will be visible 2,000 feet above U.S. cities, streaming high-resolution video to police departments below. That is the bet that multiple defense contractors are placing, anyway, as they race to build unmanned aircraft that can pass evolving airworthiness certifications and replace police helicopters. And if that bet pays off, it will radically transform the way cities, citizens, and law enforcement interact.

There's a reason big drones like the General Atomics Reaper aren't already flying over the United States. The federal rules that govern aircraft in U.S. airspace are much stricter than those that cover U.S. military drones overseas. Many of the Federal Aviation Authority's regulations were drafted for manned aircraft, long before unmanned flight across the United States was even a possibility. Now the FAA is working with the private sector to update its rules for the age of ubiquitous unmanned flight, and that will open the floodgates.

"The market won't exist until the regulations exist," said Matthew Scassero, director of the University of Maryland Unmanned Aircraft Systems Test Site. "The FAA was a little slow in coming around to the realization that we needed to get those in place."

Unlike many new industries, which grow unfettered until emerging problems prompt regulation, unmanned flight needs relief from existing restrictions in order to blossom, Scassero said. Once that happens, the market for large unmanned planes could be enormous.

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It might also represent a big problem for privacy advocates. Glimmers of that future battle are today already visible. In 2009, the military planned to launch JLENS, a 242-foot aerostat over Maryland. Original documents show that the unmanned blimp was supposed to have cameras, similar to aerostats deployed to Afghanistan. Members of the Electronic Privacy Information Center sounded an alarm. "There is a lot of potential for privacy abuse if a surveillance device can identify a human at five kilometers away," Julia Horwitz, the group's consumer protection counsel, [told](#) *The Washington Post*. JLENS went up without the cameras attached. (It later [broke loose](#), causing havoc over multiple states.)

Reaper drones can also carry highly advanced jammer and electronic warfare payloads into battle and still retain their satellite link. That means a police drone could carry a wide variety of signals intelligence collection payloads as well.

Ultimately, individual police departments and the communities that they serve, not drone makers, will decide what sort of sensors to carry aloft, and what happens to the information gathered. But the relatively low costs of long-endurance drones, coupled with the growing capability of the camera equipment attached to them, will likely hasten new debates about police use of surveillance, and, in all likelihood, a lot of new arrests.

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Fully Weaponized Killer Drones Going Into Full Production

After repeated assurances from government and military that robotic killing would not be pursued, here it is. Technocrats build because they can, not because it has been thought through. □ TN Editor

Duke Robotics, Inc., developer of advanced robotic systems technology, announced today that its offering of up to \$15 Million of common stock has been qualified by the SEC under Tier II of Regulation A+. Anyone, not just wealthy investors, can purchase stock for as little as \$450 and own a part of this award-winning company. See DukeFutureSoldier.com

Duke Robotics, Inc. is the winner of the prestigious Security Innovation Award from the U.S. Department of Defense Combating Terrorism Technical Support Office (CTTSO). The company's Regulation A+ equity crowdfunding offering provides the general public - accredited and non-accredited investors alike - a unique opportunity to invest in new and exciting robotic and drone technology developed in Israel. Duke's management believes their developments are game-changing, and with significant growth potential, in the robotics industry today.

With the mission to save lives and to empower troops with immediate aerial support, Duke Robotics has developed the TIKAD — a fully robotic weaponry system on an airborne platform, which they refer to as The Future Soldier:

- Remotely operated, user friendly, easily carried into the field
- High-powered drone capable of carrying various weapon payloads
- Proprietary stabilization technology that enables TIKAD to absorb the recoil, pinpoint targeting and shooting accuracy that can protect troops in a variety of dangerous situations
- Reduces the number of deployed ground troops, thereby reducing the number of casualties.

“As a former Special Mission Unit commander, I have been in the battlefield for many years,” said Raziel Atuar, Duke Robotics CEO. “Over the last few years, we have seen how the needs of our troops in our battlefield has changed.”

The classic army versus army confrontation on the battlefield has become increasingly rare, while guerrilla warfare is now commonplace. The use of UAVs (unmanned aerial vehicles) to fire small arms from the air has not yet been a viable option. Until now.

“When terrorists operate, they operate from within the civilian population - preventing the military from shooting a missile into their targeted area,” said Atuar. “The risk of collateral damage to innocent civilians is often too high. The primary solution you are left with is sending in ground troops - but this shifts the risk to your troops, which often leads to injuries and casualties. But, we thought, ‘what if...what if there was a better way’. So we created the solution — the TIKAD.”

TIKAD is a dramatic step forward in developing the resources needed by our troops. As the threats to our military and those in support of our objectives increase, so will government spending to address those risks. More than at any time in our history, empowering and protecting our troops is of vital national interest.

Investing in Duke Robotics, a company that provides world-class robotics technology, is an investment decision in a field that Duke Robotics' management believes has significant demand and high growth potential.

Learn more about Duke Robotics and investing in this disruptive company through their Regulation A+ Equity Crowdfunding investment opportunity at DukeFutureSoldier.com

About Duke Robotics

Duke Robotics, Inc. is a developer of advanced robotic systems technology developed in Israel. With the mission to save lives and to empower troops with immediate aerial support, Duke Robotics has developed the TIKAD — The Future Soldier. Duke Robotics innovative robotic system is adaptable to other military platforms, such as land vehicles, marine boats, etc. as well as adaptable to civilian purposes.

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