Roboteam, Inc is a leading global provider of tactical ground robotic systems, having completed more than 54 government contracts, with platforms deployed in 32 countries. Its team of experienced veterans lead the design, development, production and delivery of high performance tactical ground robots to reliably support its troops in the field. Amy Saunders spoke with Shahar Abuhaizira, CEO of Roboteam, Inc, to find out more about the company’s capabilities and view of the market.

GMC: Can you provide an overview of the company’s development, from its founding to where it stands today?

Shahar Abuhaizira: Yosi Wolf and Elad Levy founded Roboteam in 2009 as an entrepreneurial effort to help the modern day warfighter on the battlefield. After serving in the Israeli Air Force, Roboteam’s co-founders fostered the idea to bring unmanned, ground vehicles to land forces. This was a large undertaking because, at the time, land robots were reserved exclusively for explosive ordnance disposal specialists.

In 2012, Roboteam’s co-founders brought me on to spearhead the US operations. Just shortly after I joined the company, we won a contract of over US$9 million to build and deliver 100 Micro Tactical Ground Robots (MTGRs) for counterterrorism units within the US military. After winning a US$25 million US Air Force contract in 2015, we successfully placed Roboteam as a top military robotics provider.

Since 2012, we have launched five additional life-saving platforms and won contracts in the US, UK, Australia, Poland, Switzerland and Israel. What started out as an idea between two robotics specialists has grown into a multinational company with over 100 employees, 95 percent of which are military veterans.

GMC: What services and solutions does Roboteam provide, and how do they compare with competitor offerings?

Shahar Abuhaizira: We offer a full line of robotics solutions, from a 3.6lb throwable robot to a 850lb logistical carrier. Our robots provide a wide array of capabilities that help soldiers with dull, dangerous and dirty work. Our smallest platform, the Individual Robotic Intelligence System (IRIS) provides 360-degrees of HD video with quiet operations, making it perfect for stealth intelligence, reconnaissance and surveillance missions.

The MTGR, which is our most popular platform, provides all-terrain manoeuvrability with 360-degree day and night vision. Battery operated, the MTGR can run continuously for up to four hours. Also, using Roboteam’s unique “follow me” technology, a soldier can operate a convoy of MTGRs to conduct surveillance operations semi-autonomously.

The Probot (Professional Robot) is our largest platform and can carry three...
times its own weight, 1,650lbs, to be exact. With all-terrain manoeuvrability, the Probot allows ground forces to autonomously control the platform, increasing the overall efficiency of armed units.

Recently, we announced our newest platform, the Rooster, a hybrid air/ground robot that allows soldiers to overcome obstacles on the ground or underground by flying short distances. Using our IRIS platform, we were able to attach a foldable hex-rotor drone that can be remotely controlled from 700 feet away.

GMC: Where does Roboteam see itself in the market, and where is the greatest opportunity for growth?
Shahar Abuhazira: We are bringing the Silicon Valley approach to the defence market. We pride ourselves on developing products that are capable of incredible and intricate operations, but also simple enough for anyone to use. In line with our goal ease of use, each of our robots can be controlled using our integrated wireless controller named ROCU-7. With an easy-to-learn interface, soldiers can control any number of Roboteam products via a secure and intuitive control unit.

GMC: How do Roboteam’s products improve situational awareness in the battlefield, and how is this information integrated with that of other sources?
Shahar Abuhazira: Our robots venture where soldiers are unable to go or where it is too dangerous to go. Some of these areas include confined spaces, tunnels and other subterranean areas as well as urban environments, under cars and within buildings.

Through our Autonomous Model “Top Layer,” our specialized robots provide real-time 3-D mapping and autonomous navigation of a location. A single operator can control multiple robots, all equipped with numerous sensors, 360-degree...
mapping and MESH communication which provide the soldier with a complete understanding of the environment.

This information is indispensable on the battlefield and can mean the difference between life and death. The situational intelligence that our robots provide can be integrated with other types of hardware and software commercial products to create more unique capabilities that will allow better protection for the soldier and make these robots real force multipliers.

**GMC:** What are the key challenges when designing tactical situational awareness platforms?

**Shahar Abuhazira:** Creating a platform that can operate in any feasible environment that a soldier faces. This includes seemingly simple obstacles such as stairs, trash, uneven surfaces and complete darkness.

One of the key challenges that we have been able to improve upon in the robotics industry is the ability to understand the needs and requirements of the warfighter and quickly integrate those requests functional robotic solution. R&D, testing and delivery can take a long time in the defence space. We pride ourselves on our ability to truncate the turnaround time in order to get the soldier the tools that they need to stay safe.

The MTGR, for example, was in Afghanistan only one year after we started the development!

**GMC:** How big a role do you believe semi-autonomous tactical robots will play in the battlefields of the future?

**Shahar Abuhazira:** Robotics will continue to play an ever-increasing role in the military and on the battlefield. The government looks to industry for easy-to-use, cost effective, reliable and quickly deployable tactical equipment, and so far, industry has been able to meet (and exceed) this call.

Innovations in hardware and software are making it easier to develop robotics to use in the battlefield and this keeps our soldiers out of harms way and provides them with a more comprehensive understanding of the threats that could be around the corner.

**GMC:** What’s on the horizon for Roboteam in the rest of 2017 and beyond?

**Shahar Abuhazira:** At the beginning of 2017, we named the Honourable Heidi Shyu as our Chairman of the Board and LTG Charles Cleveland and Lt Gen. Kenneth Glueck to our board of directors. In addition, we will be launching a new platform this year. And we will release two new products to the market – one transportable, weight 160lbs platform, and the second will be the new generation of the MTGR. Both will be the most advanced UGVs in the market, developed together with users and will provide new amazing capabilities to the users.