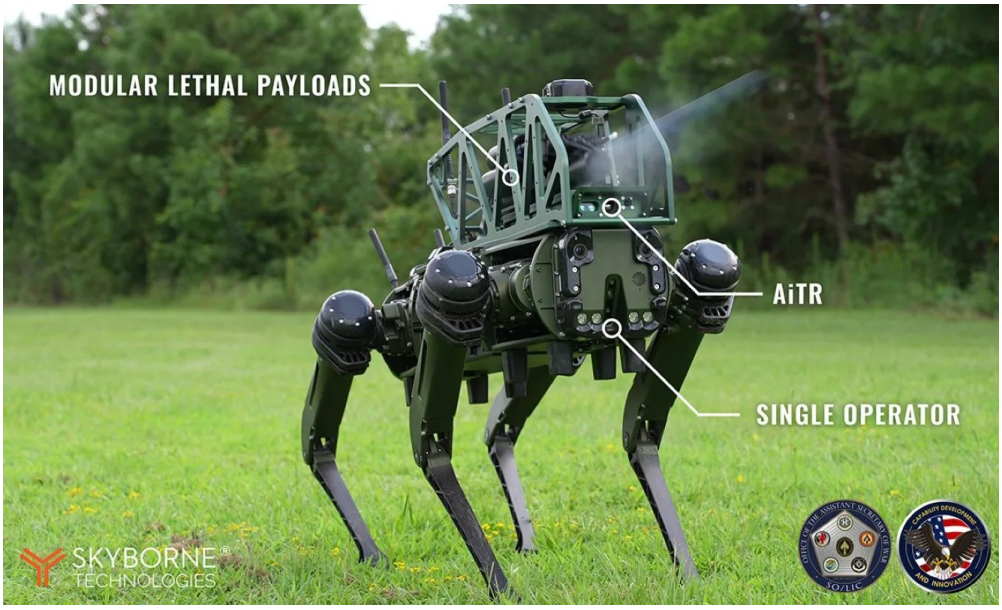

CODiAQ, the armed robot-dog for the battlefield (Video)

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Skyborne Technologies has introduced CODiAQ (**Controller-Operated Direct-Action Quadruped**) to the military market, a four-legged ground platform designed to assist combat units in reconnaissance missions, localized assault, and ballistic breaching. The system combines advanced mobility, day/night sensors, and interchangeable weapon modules to offer a rapidly deployable and relatively simple-to-use solution.

Main Features

CODiAQ is designed to operate both under **direct command of a single operator** and in **autonomous mode**, utilizing navigation algorithms and obstacle detection. Its quadruped frame allows it to tackle slopes, rough surfaces, and complex passages that would limit traditional vehicles. The system boasts environmental protection with an IP67 rating, ensuring dust resistance and the ability to be submerged up to one meter.

On the sensory side, the platform integrates an optical package with night vision capabilities and AI-based identification and tracking functions. These features are designed to reduce the operator's decision-making load and improve firing accuracy in dynamic scenarios.

The most debatable and innovative feature of CODiAQ is the availability of modular weapon payloads. The platform can mount different modules developed by the manufacturer: one dedicated to direct fire with 12-gauge ammunition and another for launching 40 mm low-velocity charges, useful for targeted engagements and ballistic breaching operations. This combination allows both direct engagement and use in infantry support roles.

According to the company, personnel training can be condensed into a few days, thus facilitating the system's rapid operational integration into adopting units.

CODiAQ, the armed robot-dog for the battlefield

Tactical Applications: An Opportunity for the Folgore Brigade

From an operational standpoint, CODiAQ could find concrete applications in the combat patrols of the Paratroopers Brigade “Folgore”. The operational profile of the Folgore — characterized by high mobility, rapid offensive actions (raids), and the ability to operate in complex and fragmented scenarios — lends itself to exploiting autonomous ground platforms as elements of **support group** or **fire group** in ambushes.

In a typical raid action, the quadruped could be deployed as a reconnaissance core to acquire enemy fire points, establish a mobile tactical base, or provide suppressive fire while troops

execute the maneuver. In ambushes, a CODiAQ equipped with projectile and grenade launcher modules could serve as a primary or support fire core, maintaining pressure on the target and reducing the direct exposure of paratroopers.

The operational advantages for the Folgore include: rapid projection capability without the need for bulky armored vehicles, the possibility of deployment in terrains where vehicles cannot pass, and options for quick attacks with reduced risk to personnel. However, integration would require clear engagement protocols, resilient communication procedures (to withstand interference and electronic attacks), and specific training to coordinate human-machine movements in the critical phases of offensive action.

Operational Advantages and Challenges

The adoption of CODiAQ promises some tangible benefits on the field: reduction of direct soldier exposure, increased mobile surveillance capability, and greater tactical flexibility in urban and wooded contexts. The combination of navigation autonomy and remote control allows the platform to be used in advance tasks or for fire support in scenarios where mobility and discretion are crucial.

However, there are technical, ethical, and operational issues related to an armed robot: what level of decision-making autonomy will actually be allowed during engagement? How will fire authorization protocols be managed? Vulnerability to electronic interference, cyberattacks, or sabotage is an element that will require robust protection systems and countermeasures. Additionally, maintenance, spare parts logistics, and total cost of ownership will remain key factors in evaluating the system's spread.

Another critical point concerns the real effectiveness in the most complex conditions: dense forests, urban centers with civilian presence, environments characterized by mobile and variable obstacles. Demos and trade show exhibitions do not always replicate the challenges of real combat; operational evaluations with government partners will be decisive in verifying its reliability in the field.

Conclusion

CODiAQ represents a turning point in the integration path between advanced robotics and lethal ground capabilities: it is no longer just surveillance or logistics, but a **platform designed for direct engagement and tactical support.** For units like the Folgore Brigade, the system could expand tactical options in combat patrols, assuming roles of support group in raids or fire group in ambushes, provided that operational protocols, cyber protections, and adequate rules of engagement are developed.

The operational implications are profound and will require careful balancing between effectiveness, human control, and the protection of rights in conflict. In the coming months, it will be important to follow the results of tests with government agencies, the number of systems actually produced and deployed, and the development of specific regulations or rules of engagement for armed ground robots.

News link: https://www.skybornetech.com/codiaq