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## **Tactical complex for reconnaissance and fire defeat of the enemy with the use of unmanned and robotic technologies**

The current realities of armed confrontation, conflicts of interest, counter-terrorism activities determine several characteristics of the nearest future. Among them it is important to highlight the following:

- Considerable increase of the role of unmanned reconnaissance and strike equipment,
- High level of autonomy of unmanned vehicles,
- Reduction in the cost of weapons compared to traditional weapons and the cost of targets.

Examples of recent events in Syria, Libya, and Nagorno-Karabakh form a completely new paradigm of armed confrontation, which involves the widespread use of "smart" drones.

It can be stated that within this paradigm modern armed conflicts will involve:

- Significant expansion of the list of countries or corporations armed with modern and efficient unmanned and robotic reconnaissance and combat equipment,
- Use of loitering missiles flocks to fire targets,
- Increasing the role of artificial intelligence in reconnaissance and combat drones, their deep robotization, which will significantly increase their combat effectiveness and provide additional opportunities for mass use.

Subjects of current and prospective armed conflicts (countries, state and quasi-state formations, corporations, etc.), which do not start implementing their own program of development of promising unmanned vehicles in time, risk losing their own positions, territories, and interests. Given the examples of developments of some global players in this direction, it can be argued that such work should have started 5-10 years ago.

We offer an innovative **tactical complex of reconnaissance and fire defeat of the enemy with the use of unmanned and robotic technologies**, the use of which (in different configurations) will solve most of the problems in areas of armed confrontation.

### **ADVANTAGES OF THE COMPLEX:**

- A unique and comprehensive solution that allows you to perform the vast majority of operational and tactical tasks in areas of armed confrontation, operating both in the air and on <http://www.robotics.run/> [main@robotics.run](mailto:main@robotics.run)  
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the ground, with minimal risks to personnel;

- Highly integrated proprietary software that allows the operator to easily control both ground-based robotic systems and aircraft and missile drones;
- Capable of rapid massive fire with a range of up to **50 km**;
- Ability to withstand massive attacks by enemy drones;
- Own system of autonomous movement, search, recognition, identification and destruction of targets, which allows you to work in the mode of " fire-and-forget" and makes your own drone insensitive to the action of the enemy's radio-electronic countermeasures;
- The principle of minimizing the weapons cost is fully implemented, and the weapon is able to destroy almost any equipment of the enemy and groups of enemy forces;
- Absence of expensive and vulnerable stationary ground control centers (which are used, by comparison, with Bayraktar TB2 );
- Development, production and modernization are concentrated in one team, which greatly simplifies the operation of the complex, its maintenance, the relationship between developer and customer.

**The complex can be applied in various complete sets, depending on tasks of the customer. The following are the main components of the complex, which in different combinations have specific tactical advantages and applications:**

#### **1. Ground robotic complex class RSVK-M3, which can be equipped with:**

- high-precision combat module with a machine gun 12, 7 mm and / or 7,62 mm,
- counter-battery reconnaissance equipment with rapid identification of the location of enemy artillery for its further destruction,
- 1-2 anti-tank guided missiles,
- **2-4 light SMART** loitering missiles,
- equipment of radio-electronic countermeasures to enemy drones,
- robotic system of autonomous movement and recognition of goals,
- controls providing a range of 2000 - 3000 m from the operator, and
- has dimensions (L \* W \* H) 2050 \* 1280 \* 1700 mm, own weight up to 700 kg and payload 100 kg.



## 2. Light reconnaissance aircraft complex SUAS-3:

- with a reconnaissance radius of up to **50 km**,
- (L \* W) 1140 \* 1720 mm,
- support for fast automated cassette start,
- an efficient autonomous traffic system, independent of navigation signals and communication with the operator,
- automatic system of search, recognition, identification of targets, determination of their coordinates and their transfer to the operator **RSVK-M3, LUACC** or **SLLR** for destruction.

The complex can be built on the basis of a fuselage or classic unmanned aerial vehicle with different characteristics (the image below is for example):



3. **LUACC** loitering missiles, designed to work in packs and mass launch from a cassette of any basis, such as automobile:

- (L \* W) 1200 \* 1650 mm, net weight 6 kg, warhead weight **3 kg**,
- cruising speed 70 km / h, maximum speed 130 km / h,
- works on the principle of "**fire and forget**",
- resistant to radio-electronic countermeasures of enemy equipment,
- has an effective proprietary autonomous traffic system, independent of navigation signals and communication with the operator,
- has an automatic system of exit to a predetermined square and a system of search, recognition, identification and impression of various purposes,
- has a radius of impact of up to **35 km** and is able to disable any armored vehicles of the enemy, other important means and equipment.

4. **LUACC-EMI** electromagnetic loitering missiles, which:

- designed for mass launch from the cassette of any base (stationary, automotive, marine, etc.),
- explodes with a superpower electromagnetic pulse (EMI) in the area of accumulation of drones and / or other enemy equipment in the air or on the ground, and instantly disables unprotected microelectronic equipment,
- has a radius of electromagnetic impression of **200 m** and a range of up to **35 km**.



5. Mobile and compact **LMCS** ground stations to control the means provided in paragraphs above. 1-5, which:

- inconspicuous for means of reconnaissance and counteraction of the enemy,
- can be located at a distance of **2 - 45 km** from the lines of opposition,
- allow simultaneous control and management of all means from several points,
- have highly integrated software for working with all means p.1-5.

For the last 5 years our company has been consistently working in the field of creation, testing in real combat conditions, and preparation for serial production of robotic ground, aircraft and missile systems and their components.

We pay special attention to the development of the components of the artificial intelligence system and their implementation in our developments.

These components of the complex can be combined in any configuration and quantity, taking into account the specific needs and tactical tasks of each customer.

The conditional minimum delivery set of the “5 in 1” complex may include (as an example):

	base carrier	Quantity included	The price of each working unmanned component, \$	The price of a set together with the carrier, \$
<b>RSVK-M3</b>	own platform	1	-	-
<b>SUAS-3</b>	auto pickup	6	-	-
<b>LUACC</b>	auto pickup	24	-	-
<b>LUACC-EMI</b>	auto pickup	24	-	-
<b>LMCS</b>	auto pickup	1	-	-

Readiness for mass production for various components is from 95 to 40%. RSVK-M3 is the most developed and ready for serial production. The components of the complex can be supplied separately and efficiently perform the tasks.

However, the best result can be obtained with an increase in the number of components of the complex, which are used together and significantly expand the tactical capabilities of each component, forming a synergistic effect.

Since 2016 we have been actively testing / applying modifications of combat ground robots and other components of the complex in real combat conditions in eastern part of Ukraine. To date, 15 multi-day combat missions have been successfully implemented. Considerable and unique combat experience has been gained, and the remarks and suggestions of servicemen have been taken into account. Today our products are the quintessence of the combat experience and modern technologies.