



Bungee UAV

launching system SCL-1A

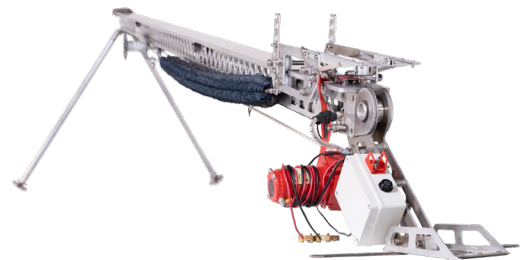
The bungee catapult launching system SCL-1A is designed to launch unmanned aerial vehicles with a takeoff weight of up to 10 kg at a speed of 25 m/s (90 km/h).

25 m/s (90 km/h) max. launch speed of a UAV

Launches UAVs with a takeoff weight up to 10 kg

Operates autonomously

Able of operating under various weather conditions



System

features and technologies

The bungee catapult SCL-1A is capable of launching UAVs from limited areas with a ground covering, under various weather conditions, at any time of the day in the temperature range from -15° to $+40^{\circ}$ C.



Launches UAVs with a takeoff weight up to 10 kg

Bungee catapult can launch UAVs with a takeoff weight of up to 10 kilograms.



25 m/s (90 km/h) max. launch speed of a UAV

The launch speed of a UAV can reach 25 m/s (90 km/h).



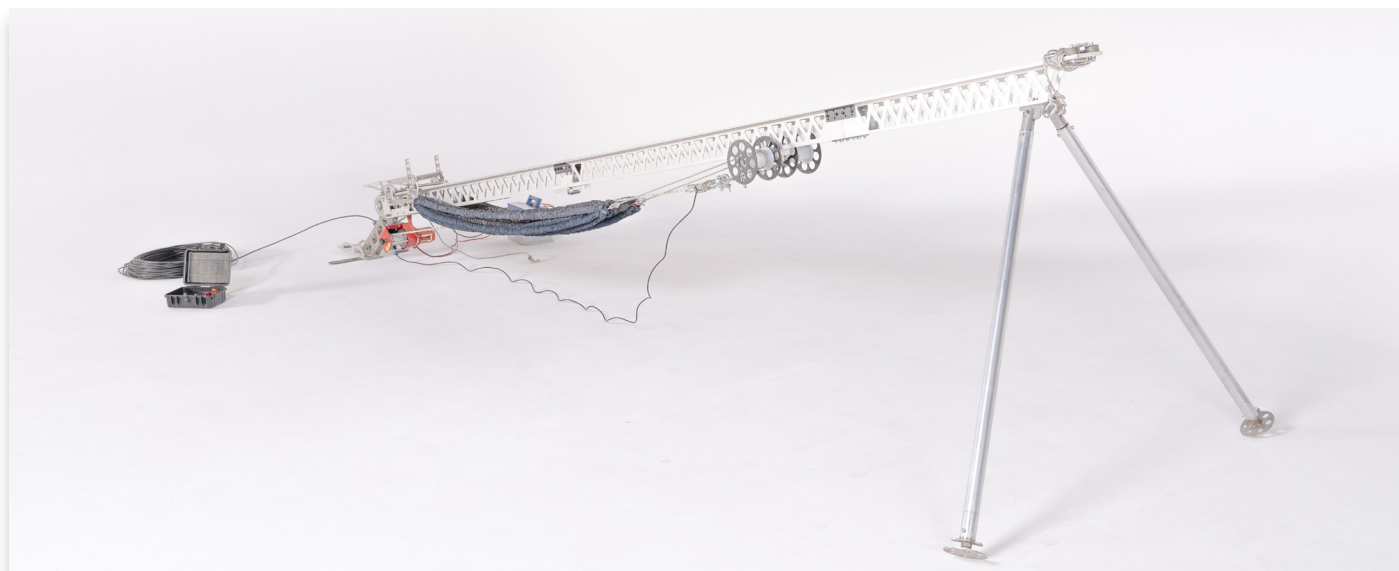
Ability to operate autonomously

The unit operates autonomously and is powered by a lead-acid battery.



Capable of operating in harsh temperature conditions

From -15° C to $+40^{\circ}$ C.



How it works:

Structurally, the launcher consists of a rail and a launcher installed on it. Latex harnesses are attached to the trolley, which are stretched through the unit by an electric winch to the required force. The ground launcher works autonomously and is powered by a lead-acid battery. The number of starts depends on the capacity of the battery, the state of its charge, and the ambient temperature.

The power supply of the installation from the car accumulator is allowed. Control of start is carried out by the remote wire control panel up to 100 m long. The tension of plait to the set effort can be carried out both in automatic and in a manual mode. The level of tension of the harnesses is monitored by the indicator of the electronic dynamometer. In the SCL-1A there is a possibility of compulsory emergency release of tension of plait. When harnesses are armed, the carriage with the launched UAV on it is countered by a safety pin, which is pulled out immediately before starting.

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Technical

details

Launcher specifications:

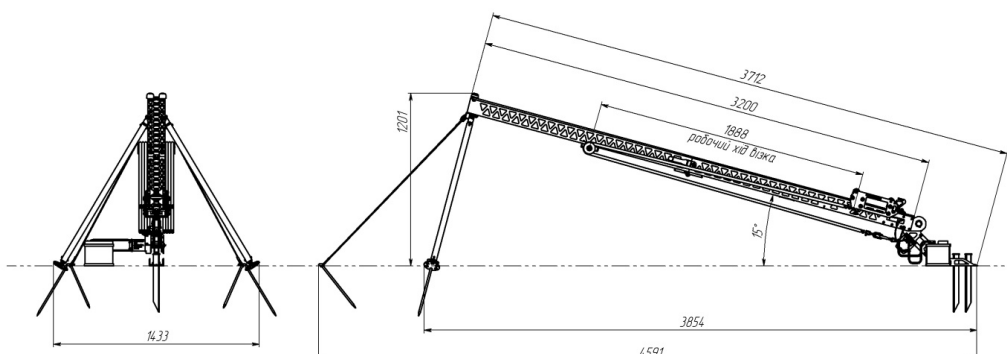
Maximum weight of the launched UAV (with a speed of 25 m/s).....	10 kg
Maximum launch speed of the UAV.....	25 m/s (90 km/h)
Range of ambient working temperatures.....	-15 °C +40 °C
Launch angle of the rail relative to the ground.....	12°
Length.....	3.85 m
Width.....	1.43 m
Height.....	1.2 m
Overall length of the rail.....	3.71 m
Carriage stroke.....	1.89 m
Rail weight.....	41 kg
Carriage weight.....	2.75 kg
Time of the launcher assembling.....	15 min
Number of people required for the launching system assembling.....	2 people
Number of people required to move the launching system case.....	2 people
Time of arming of harnesses and preparation for UAV launch.....	15 min

Technical characteristics of the control and power system:

Control panel weight.....	0.5 kg
Control panel harness length.....	100 m
Rated battery voltage.....	12 V DC
Maximum battery capacity.....	60 A*h
Maximum battery power.....	6480 W
Maximum discharge current.....	540 A
Maximum power of the electric winch.....	670 W
Maximum traction force.....	400 kgF
Average start interval.....	15 m
Maximum number of starts on one battery charge.....	9

Transportation and storage:

Total weight of the launching system without transport case and auxiliary equipment.....	65 kg
Total weight of launching system with transport case.....	100 kg
Weight of the transport case.....	39 kg
Dimensions of the transport case.....	430x520x2020 mm



Want to know more?

■ S m a r t s o l u t i o n s c o m p a n y