

## FIXED WING DRONE „SHRAPNEL“

Loitering munition armed with a 81 mm bomb



### DESCRIPTION:

The **SHRAPNEL** drone is a fixed-wing loitering munition designed and produced by **PR-DC** with a unique high-performance box wing. The aircraft is made of composite materials, primarily of carbon-fiber-reinforced polymers. It is armed with a 81 mm aerial bomb (e.g. Krušik M72), which is easily slid through the aircraft frame and fixed before launch. Flight can be programmed to be fully autonomous according to target coordinates, or manually guided using a camera.

### SPECIFICATION:

<b>Powertrain:</b>	1 electric motor
<b>Total mass:</b>	10 kg (22 lb)
<b>Optimal payload mass:</b>	4 kg (8.8 lb)
<b>Range:</b>	60+ km (37+ km)
<b>Flight time:</b>	60+ min
<b>Cruise speed:</b>	125 km/h (77 mph)
<b>Dimensions:</b>	1200 mm x 1070 mm x 315 mm (3.9 ft x 3.5 ft x 1 ft)
<b>Transport package dimensions:</b>	1240 mm x 310 mm x 290 mm (4 ft x 1 ft x 0.95 ft)
<b>Guidance:</b>	based on GNSS and camera
<b>Power source:</b>	lithium based battery
<b>Remote controller:</b>	IKA-CTRL with custom FlightControl App

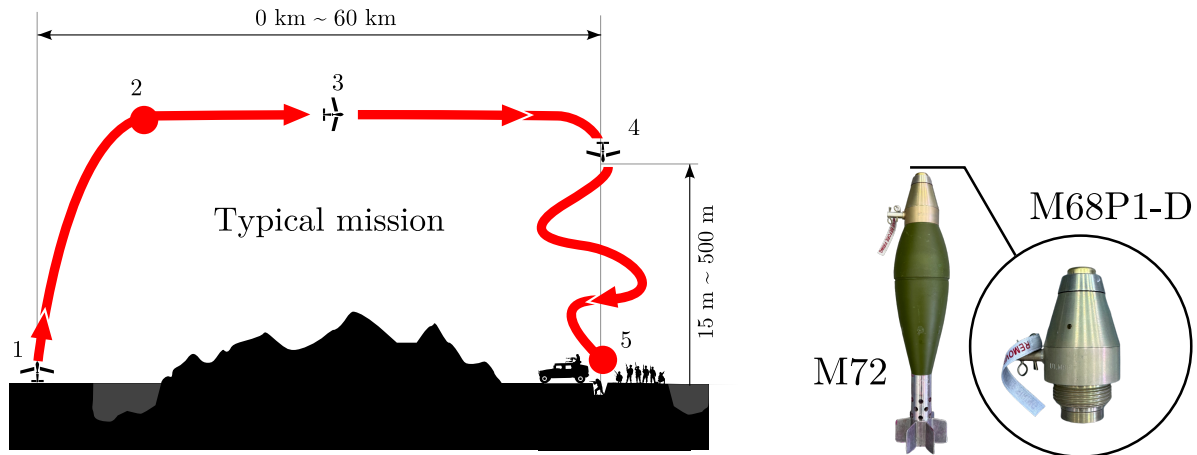


Figure 1 - Typical mission (left) and armament (right)

**ARMAMENT CHARACTERISTICS:**

Type and quantity:	Aerial bomb with a diameter of 81 mm
Bomb length with fuze:	470 mm (1.54 ft)
Fuze type:	impact, superquick action, specially designed for drone use
Fuze safety:	two safety pins (transport and release)
Mass of a single bomb with fuze:	4100 g (9 lb)
Explosive charge:	trotyl (TNT)
Mass of explosive charge:	900 g (2 lb)
Blast radius (1 penetration / m <sup>2</sup> ):	18 m (59 ft)
Safe operation temperature range:	-46°C to +63°C (-58°F to 145°F)