

# DI

## Drone Impact Activation System - Safe. Smart. Reliable

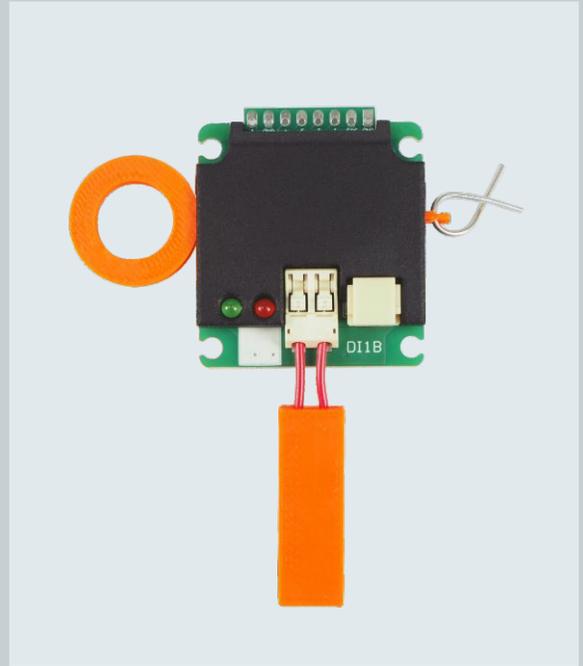


Integration with an FPV drone



Mechanical safety pin – arming stage is possible only after removal – no risk for accidental initiation

Safe transportation mode



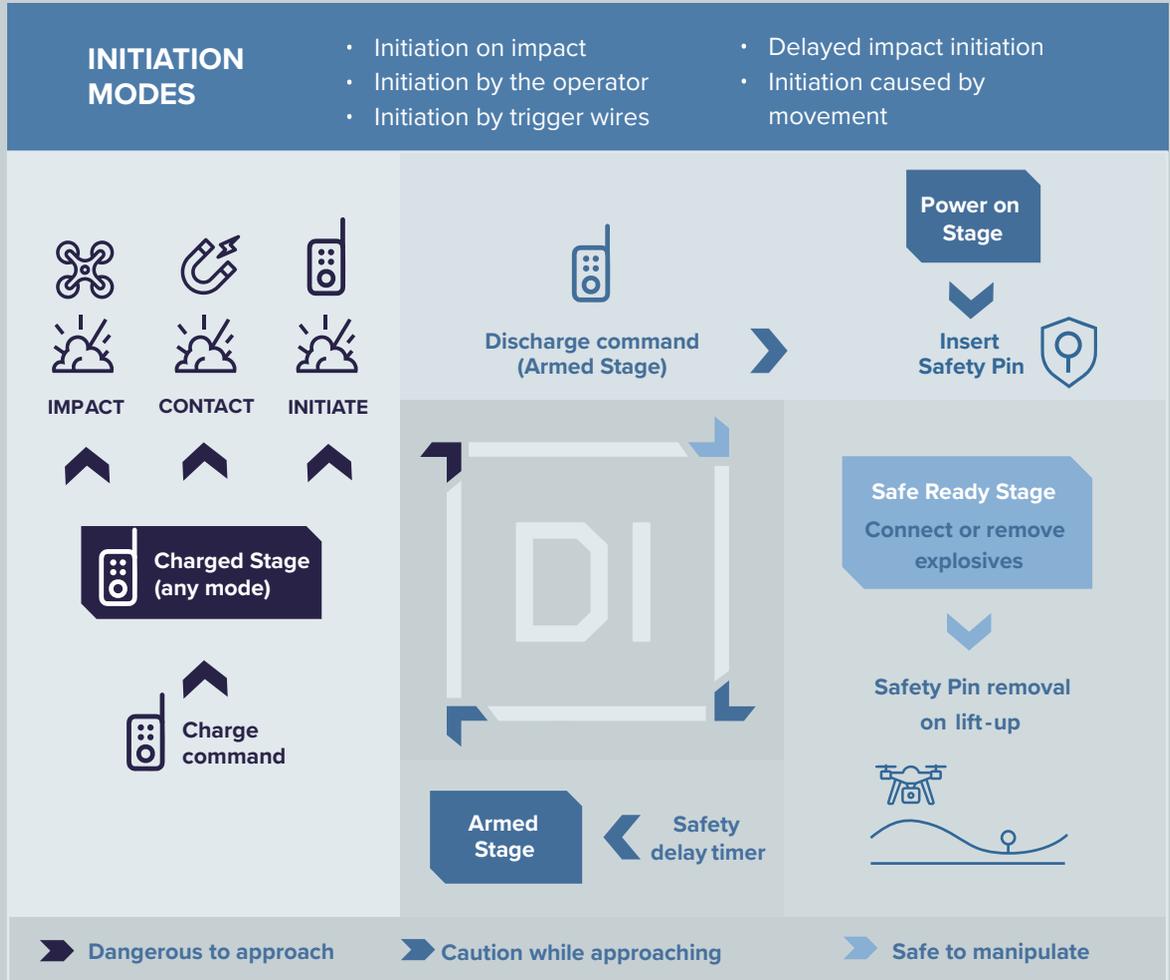
Duplicated ED connector for enhanced protection against static discharge

**DI (Drone Impact Activation System)** is a light small sized explosives initiation system dedicated for attacking drones or smart munition applications. It can operate as a main or secondary explosion initiating system (fuse). The system is equipped with an accelerometer, magnetometer and has the ability for other sensors to be connected. The DI system supports several initiation modes that can be selected during operation. Product is designed to be easily installable, functional, safe and reliable.

### SAFETY-FIRST LOGIC INSIDE

- Capacitors charge logic built in the software
- Internal mechanical switch providing an additional hardware safety layer to complement the software layer
- Optimized accelerometer prevents initiation under aggressive FPV maneuvers
- Protection from high-power radio interferences
- Duplicated ED connector for enhanced protection against static discharge

# Operational Logic Overview



**POWER ON STAGE** – when device is powered on, and safety pin has not been inserted yet. In this stage device cannot be armed for initiation until safety pin is inserted;

**SAFE READY STAGE** – this mode is available only when safety pin is inserted;

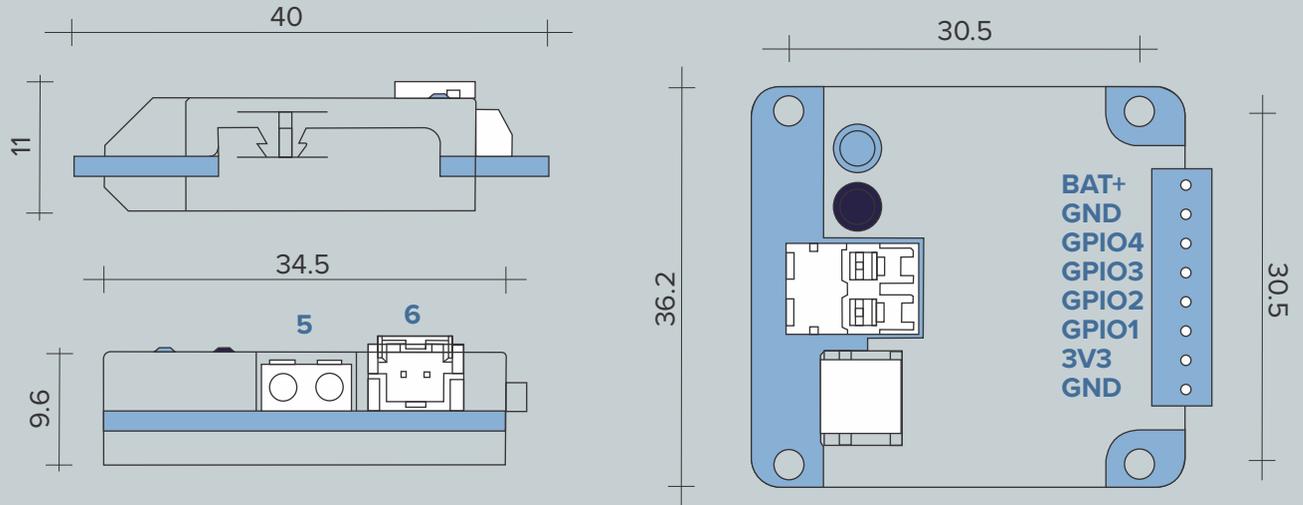
**SAFETY DELAY** – adjustable time interval for safe retreat (flyaway) after safety pin removed;

**ARMED STAGE** – device enters this mode, when safety delay timeout has passed. In this stage device can be prepared for attack (charged) using remote control;

**CHARGED STAGE** – this stage is enabled using drone controller. This stage has three operating modes. Operational mode depends on controller command that is set to!

**RULE 1:** Explosives can be connected to DI device only when safety pin is inserted (safe ready stage);

**RULE 2:** The main rule when operating the DI device is – if the device is connected to the explosive charge - do not approach the device unless green led is visible.



## TECHNICAL DATA

<b>CONTROL SIGNALS</b>	<ul style="list-style-type: none"> <li>• Servo PWM variant</li> <li>• Crossfire variant</li> </ul>
<b>MECHANICAL</b>	<ul style="list-style-type: none"> <li>• External measurements – 36,2 x 40 x 9.6 mm.</li> <li>• Weight 13g; 15g with safety pin</li> <li>• Housing: Nylon PA12 with open PCB (coated) soldering points</li> </ul>
<b>ENVIROMENT</b>	<ul style="list-style-type: none"> <li>• Operating temperature -41°C to +71°C</li> <li>• IP rating – IP31 if no housing used</li> </ul>
<b>ELECTRICAL</b>	<ul style="list-style-type: none"> <li>• Power input voltage: 30 V</li> <li>• Power consumption at idle: 9mA (depends on DE resistor, minimum 4V)</li> <li>• Power consumption peak load: 120mA (depends on DE resistor, minimum 4V)</li> <li>• Power Output: 3,3 V, 50 mA</li> </ul>
<b>INITIATION</b>	<ul style="list-style-type: none"> <li>• Up to 140 mJ Electric Detonator (ED) initiation charge</li> <li>• Up to 16V Integrated electric charge voltage</li> <li>• Up to 10A initiation current (depends on ED resistance)</li> </ul>



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Remote Initiation & Smart Munition  
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