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Protection against drones in industrial facilities

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Content

- The threats posed by drones
- Passive drone detection
- Active countermeasures
- Protection against drones in industrial facilities
- Risk analysis and protection design



Source: https://store.dji.com/



The threats posed by drones

- Observation, industrial espionage
 - "Best spy drone" (Google 9 million hits in 0.27 seconds)
- Armed assault, Terrorist attack
- Carelessness, accident
- Unauthorised use of airspace



Source: https://trackimo.com/weaponized-drones



Passive drone detection

- Acoustic perception
- Radar detection
- Radio frequency detection



source: https://www.droneshield.com/rfone



Source: https://usdgs.com/drone-detection-system/



Source: https://www.dronedj.com



Active countermeasures

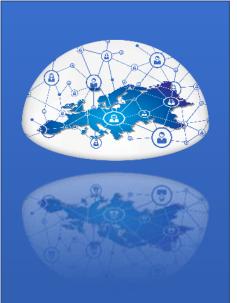
- Signal interference
- Hijacking
- Kinetic countermeasures



source: https://www.droneshield.com/

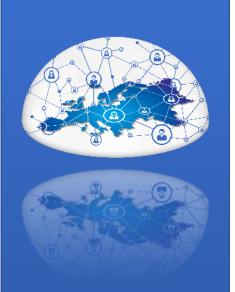


Source: https://www.blighter.com



Protection against drones in industrial facilities

- Incident prevention strategies and the importance of preparedness
 - Activity based risk assessment
- The criticality of incident management and timing of response
 - Operational response
- Post-incident actions and lessons learned
 - Review and update the security concept (personnel and equipment)



Risk analysis and protection design

- Activity-based risk analysis and level setting
 - Probability scale
 - Consequence scale
 - Risk matrix
- Specific design of the protection strategy against drones
 - Preparation of a response plan
 - Principle of gradualness
 - Developing a toolbox for protection



Thank you for the kind attention!