

exail

AIR & LAND DEFENSE ROBOTIC SOLUTIONS

exail at a glance

80
YEARS OF EXPERIENCE

250+
MILLION EUROS OF TURNOVER

80%
OF TURNOVER ACHIEVED ABROAD

1500+
EMPLOYEES

80
COUNTRIES SERVED WORLDWIDE

20%
OF TURNOVER REINVESTED EACH YEAR IN R&D

80
COUNTRIES EQUIPPED

1000+
PLATFORMS EQUIPPED

24/7
TECHNICAL SUPPORT

Exail, a global partner for Air & Land defense robotic solutions

The introduction of robotic solutions will be one of the main breakthrough in Air & Land defense in the next years to come. Today, these solutions provide the capability to conduct and fulfill a wide range of missions from Explosive Ordnance Disposals (EOD), Chemical Bacteriological, Radiological & Nuclear (CBRN), Intelligence & Surveillance. Tomorrow, these capabilities will extend to Last mile logisitics, soldier companion and many other missions to support operational forces.

Leveraging 80 years of expertise in robotics, Exail solutions – that range from Unmanned Ground Vehicles (UGVs), Unmanned Aerial Vehicles (UAVs) and Teleoperation Systems for large UGVs to Command & Control (C2) systems – already save live by keeping human beings away from the danger zone. Exail is at the edge of innovation to support this technological breakthrough that will expand capabilities.

A SCALABLE RANGE OF AIR AND LAND DEFENSE ROBOTIC SOLUTIONS

Cargo 15
Rugged Unmanned Aerial Vehicle (UAV) for 15 kg cargo missions

Teleoperation System
Advanced system for remote Unmanned Ground Vehicle (UGV) command and control

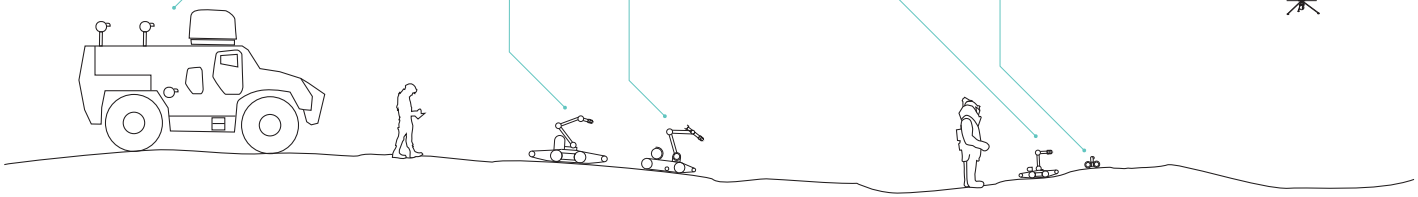
Iguana
Unmanned Ground Vehicle (UGV) with multi-mission robotic arm and high obstacle clearance capabilities

Cameleon MK3
Portable Unmanned Ground Vehicle (UGV) with multi-mission robotic arm capabilities

Cameleon LG
Backpackable Unmanned Ground Vehicle (UGV) with robotic arm capabilities

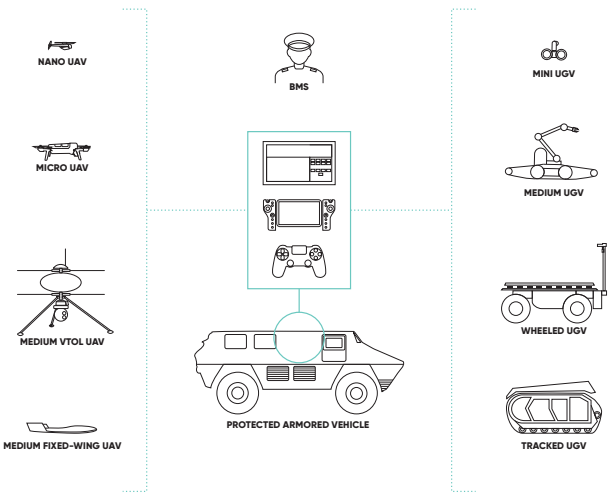
Cobra
Ultra-light backpackable Unmanned Ground Vehicle (UGV)

IT180-60
Low noise and long endurance modular VTOL Unmanned Aerial Vehicle (UAV)



COMMAND & CONTROL SYSTEM

The advancement of new reliable and robust UGVs has revolutionized the way land warfare is being conducted. Leveraging its extensive robotics expertise to help land forces in this transition, Exail has developed an advanced C2 system able to control multiple UGVs and UAVs and bringing safer operations by keeping troops away from the danger zone. Offering complete situational awareness, our C2 system can be tailored to specific needs and for any existing land vehicle, expanding land forces capabilities.



UNMANNED GROUND VEHICLES

Exail provides a wide range of reliable and robust UGVs dedicated to Intelligence, EOD/IEOD and CBRN applications. Offering high maneuverability and stability through the toughest obstacles (mud, snow, sand, dirt, etc.), Exail's UGVs can be deployed within the most challenging environments. Their modular architecture and remote capabilities make them the perfect platforms to conduct a wide range of missions with the utmost flexibility and security.



Cobra

INTELLIGENCE CBRN EOD

Ultra-light backpackable UGV

The Cobra is a 6 kg combat-proven UGV. Ultra-light, compact and backpackable, it is easily deployable for rapid interventions. Its user-friendly and ultra-light Operator Control Unit further facilitates operations.



Cameleon LG

INTELLIGENCE EOD CBRN

Backpackable UGV with robotic arm capabilities

The Cameleon LG is a lightweight and compact UGV easily deployable in the context of a rapid intervention. Offering 20 cm obstacle clearance capabilities, it is equipped with a manipulator robotic arm able to be fitted with various tools, making it a highly versatile UGV adaptable to a wide range of missions.



Cameleon MK3

EOD CBRN INTELLIGENCE

Portable UGV with multi-mission robotic arm capabilities

The Cameleon MK3 is a lightweight multi-mission UGV for specialized intervention. With its advanced manipulator robotic arm and comprehensive tools capacity, it can conduct a wide range of missions. Easy to deploy by a single person or from a standard vehicle, it is highly maneuverable and offers obstacle clearance capabilities up to 25 cm.



Iguana

EOD CBRN INTELLIGENCE

UGV with multi-mission robotic arm and high obstacle clearance capabilities

The Iguana is a two-men portable UGV for specialized intervention. Its robotic arm, that can be fitted with a comprehensive set of tools (X-RAY systems, disrupters, lasers, etc.), offers multi-mission capabilities. Highly maneuverable and narrow, it benefits from high obstacle clearance capabilities (up to 50 cm) and can operate in highly confined spaces.

	Cobra	Cameleon LG	Cameleon MK3	Iguana
Obstacle clearance	9 cm	20 cm	25 cm	50 cm
Weight (base)	6 kg	14 kg	28 kg	52 kg
Tools*				
Manipulator robotic arm	–	5 axis	6 axis	6 axis
Vertical x horizontal reach	–	0.9 m x 0.9 m	1.5 m x 1.2 m	2.2 m x 1.2 m
Pan & Tilt	●	●	●	●
Disruptor mounts	1	1	2	2
X-Ray sensors			●	●
Localization & mapping modules		●		
Dropping charge	●	●	●	●
Window breaker		●	●	●
Cutting tools		●	●	●
Explosimeter			●	●
Sample collection device			●	●
Multiple CBRN sensors mounts	●	●	●	●

* Other tools can be provided upon request.

TELEOPERATION SYSTEMS FOR LARGE UNMANNED GROUND VEHICLES

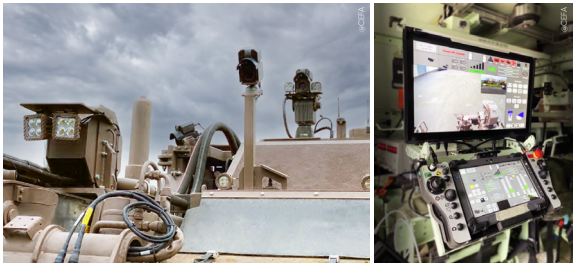
Exail's advanced teleoperation systems allows to convert existing manned defense vehicles into unmmanned teleoperated vehicles to remotely control them from a secured area. Our teleoperation systems provide intuitive situational awareness and easy control of all the vehicle functionalities.

Zone Demining System (SDZ)

Zone clearance systems developed by CEFA

EOD

The SDZ is a remotely-controlled multipurpose and efficient UGV able to respond to all demining needs. The SDZ, able to be fitted with a wide range of tools, is especially designed to mechanically clear extensive explosive contaminated areas or to quickly create safe lanes.
For this vehicle, Exail provides an advanced control system based on a set of high-resolution cameras and a console integrated in a protected vehicle. This teleoperation system allows operators to easily switch from beyond-the-horizon to line-of-sight control.



UNMANNED AERIAL VEHICLES

Exail's range of UAVs is suitable for intelligence or last mile logistics missions. Offering unrivaled robustness in extreme weather conditions, it operates with low noise and can carry up to 15 kg of payloads.



IT180-60

INTELLIGENCE

Low noise and long endurance modular VTOL UAV

The IT180-60 is a long endurance electrical Vertical Take-Off and Landing (VTOL) UAV which can carry multiple payloads. Offering robustness, reliability and performance, the IT180-60 can be operated in harsh weather conditions (wind gusts up to 60 km/h, rain, sand, extreme temperatures, etc.). It offers live and enhanced vision, low noise pollution, as well as superior tracking capabilities for intelligence missions.



Cargo 15

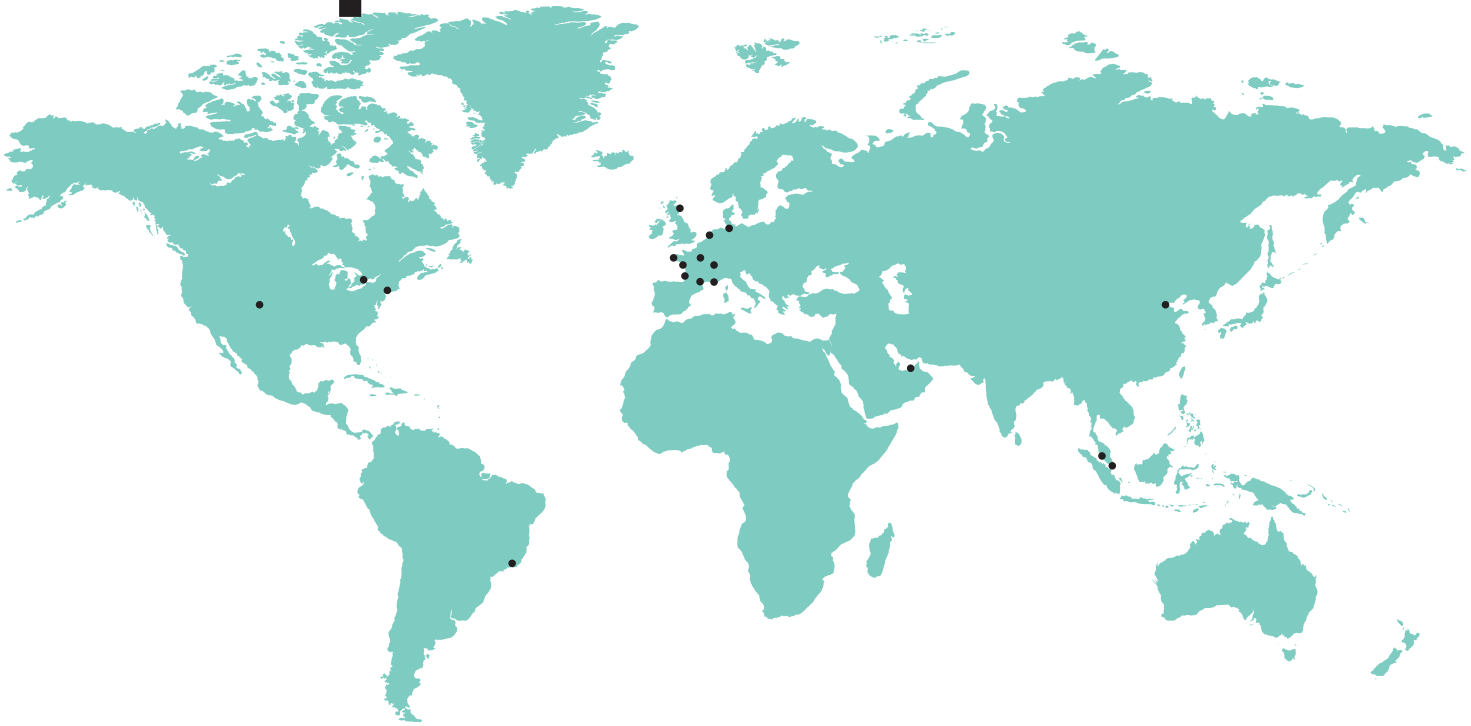
LOGISTICS

Rugged UAV for 15 kg cargo missions

The Cargo 15 is an electrical VTOL UAV derived from the IT180-60 architecture, offering enhanced payload capacity. Especially designed for logistic missions, it can quickly transport goods up to 15 kg with very high reliability, even in harsh weather conditions.

	IT180-60	**Cargo 15**
VTOL automatic take-off and Landing	Yes	Yes
Weight (unloaded)	21 kg	21 kg
Max payload	5 kg	15 kg
Max speed	72 km/h	72 km/h
Endurance	Up to 60 mn	20 mn @ 15 kg payload 30 mn @ 10 kg payload 60 mn @ 5 kg payload
Transportation range	-	10 km return @ 15 kg payload 16 km return @ 10 kg payload 24 km return @ 5 kg payload

our global footprint



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