

FOBOS SOLUTIONS - WBA 2022

SOLUTIONS FOR AVIAN WILDLIFE CONTROL

7-8th March 2022

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Fobos Solutions



Fobos Solutions is a leading company in the integration of robotic falconry systems for avian wildlife control.

We offer comprehensive and collaborative solutions for the avian wildlife control in any environment: we study the avian wildlife, we design the integral solution and adapted to the problem, we implement the solution, we follow up.



Our solutions



GAVIZOR® our biomimetic drone with patent-protected technology is manufactured entirely in our facilities ensuring the highest quality standards.

The research carried out over years by scientists from the Higher Council for Scientific Research (CSIC), the highest scientific department of the Government of Spain, on drones for the control of avian pests, resulted in the patent "Biomimetic and zoosemiotic aerial vehicle controlled by automatic pilot".

In 2014, FOBOS SOLUTIONS signed an assignment contract with the CSIC for which it is the only exclusive concessionaire that owns the exploitation rights of this patent.

International recognitions

In 2016, a committee of independent experts from the European Commission awarded the "EAGLE" program the "SEAL OF EXCELLENCE".



Our technological partners



Traditional falconry vs GAVIZOR®



- Traditional falconer needs a long learning period. **GAVIZOR® training** takes around **3 weeks**.
- Traditional falconers try to hunt the weakest bird. Birds flies unpredictably. **GAVIZOR® controls the direction and place of flight of birds** and the operator decides **when and where to fly**.
- Birds get sick, die, get lost and don't always fly. **GAVIZOR® is 100% operational, 365 days a year and regardless of weather conditions.**



Traditional falconry vs GAVIZOR®



- The training of a bird is long and should preferably be done in the place where they are going to work. **GAVIZOR® can be synchronized with other control avian wildlife systems.**
- It is not always effective against raptors or scavengers. **GAVIZOR® is effective against raptors and scavengers.**



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Other robotic falconry systems



Biomimetic drone GAVIZOR®



- **EASY TRANSPORTATION, ACCESS AND OPERATION**
- **EASY HANDLING: A SINGLE OPERATOR**

Main features

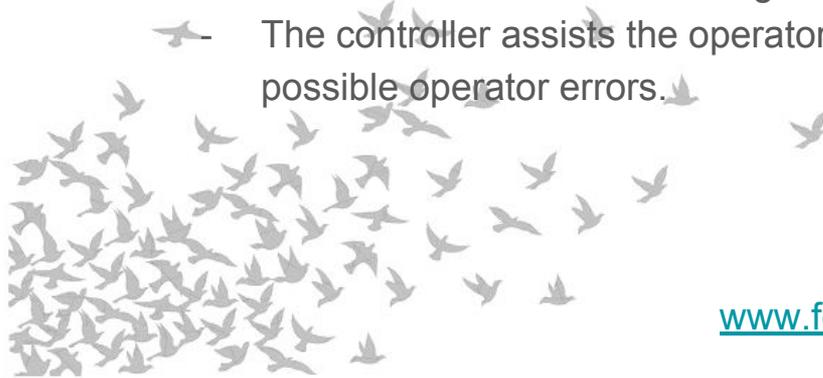
- Made of EPP and composite materials - High resistance to impacts and abrasion.
- Operates in windy and rainy conditions.
- Portability: The entire system in your backpack weighs 12 kgs.
- Rapid deployment in the area of operations.
- Possibility of fully automatic BVLOS and EVLOS flights.
- Range of 10 kms
- Weight of 2,200 grs



Main features



- FPV option.
- On-board audio system for the emission of "death shrieks" of the birds to be controlled.
- Specially designed to easily operate in assisted manual mode.
- Quick implementation of the system - 3 weeks of training.
- "Easy" flight modes specially designed for new operators.
 - Automatic takeoffs and landings.
 - The controller assists the operator in flight, guaranteeing safety, even correcting possible operator errors.



Adverse operational environment

- High temperatures in summer in southern Spain: above 45° and arid environment
- Low temperatures in salmon farms in Norwegians fjords: below 8°C
- Tropical climates in shrimps farms in Ecuador: high salinity and temperatures
- Mining in the Chilean Andes: takeoffs at 3.500 meters of altitude
- Atacama desert in industrial facilities: arid environment and takeoff winds greater than 25 knots



Our airport experiences

Today FOBOS SOLUTIONS operates in airport facilities, complying with all the necessary security standards due to the security systems that our biomimetic drone **GAVIZOR**[®] has, such as ADSB and fail save.



AI for the avian wildlife control

PYROTECHNIC DEVICES



GAVIZOR®



AUDIO SYSTEMS



COORDINATE
USE OF
DIFFERENT
SYSTEMS

LASER DEVICES



USV FOXBOAT®



THERMAL VISION SYSTEMS



AI for the avian wildlife control

- We collaborate in AI projects to control the avian wildlife.
- We are looking for strategic alliances to collaborate in international projects for the development of global solutions based on our biomimetic drones, AI and AV.



THANK YOU

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