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PROPOSAL FOR:

IRAN KHODRO 2008 PEUGEOT ASSEMBLY LINE

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HOUPER GROUP

HOPR Group offers innovative solution and plan in various fields without any dependence to specific brands. Our excellent background in industrial operations and dominance overall needs are aimed to integrate and develop system synergy. HOPR activities in Middle East's biggest projects and its cooperation with international general contractor companies and positive results obtained throughout all, put a seal of approval on our achievements in testing all HOPR's capabilities.





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Engineering Process Description

This Document represents engineering process description of Pardisan Houper Group, regards to design of necessary system (mechanical and extra low voltage) of project. The main goal is to create guide lines for all designs.

1 Bird Repellent Solution Introduction

Each year businesses, government agencies and individuals spend thousands of dollars cleaning up after and repairing damage caused by pest birds. Nesting and roosting birds leave behind debris and droppings that can cause serious damage to materials, metals etc. Bird droppings are acidic and can quickly erode materials. Along with the damage pest bird's causes to materials, their feces can carry any of 60 transmittable diseases. These diseases can be harmful to children and others with compromised immune systems. It is important to install safe and humane bird control products before pest birds are able to cause problems.

Electronic bird repellent devices produce extremely effective audio and visual threats that frighten, irritate, and disorient birds, forcing them to seek calmer, untreated areas. Electronic bird deterrents condition pest birds to stay away from treated areas for good.

1-1 Advantages of Electronic Bird Control

 Electronic bird control devices are easy to install and start repelling pest birds almost instantly.

For fast results and minimal labor, electronic bird control is an excellent choice.

 Electronic bird repellents cover areas where use of physical barriers or visual scares may not be ideal.

Sometimes sonic/ultrasonic broadcasts and repellent lasers are only needed during certain times of the day. Electronic bird deterrent units are easily programmable to run on a specific schedule so that birds are unable to acclimate within covered areas.

Electronic bird repeller are long-lasting and require little to no maintenance.

Simply install and switch on the product for effective results that can last for years with proper use.

Electronic bird control is human friendly!

There are no side effects for people in the area.

Electronic bird control is humane and eco-friendly!



No mess, no chemicals, no traps.

2 Different Methods of Bird's control

There are many types of bird control devices that has been manufactured. Many of them can be used in agriculture and high rises and factories. Here you can see most used solutions for indoor and outdoor sites:

2-1 Sonic Birds Technology

These types of controllers eliminate pest birds from any area with natural bird calls. Sonic bird repellers are easy to install, fully programmable and volume-controlled, and extremely effective. Broadcast sonic bird alarm calls and predator cries that condition pest birds to stay away from the area.

Property managers must keep facilities safe and free of health hazards. Pest birds and their droppings create unsanitary conditions, cause untold billions of cleaning and repair costs, liability and accident risks, along with contamination and disease. Using naturally recorded sonic bird distress calls and predator cries keep birds and their mess away from any facility or home.



2-2 Ultrasonic bird controller

These repels pest birds without bothering humans. Ultrasonic bird repellents are simple to install,



IRAN KHODRO BIRD REPELLENT SYSTEM SOLUTION

extremely low-profile, & highly effective. Repel pest birds discreetly & permanently using silent-to-humans ultrasonic sound waves! Ultrasonic bird repeller technology is extremely irritating & disorienting to birds, but remains a safe, humane & eco-friendly option.

Facility managers must maintain safe, healthy properties. Pest birds create unsafe conditions & cause untold billions in damage & maintenance costs, liability & risk exposure from accidents, pollution & disease.









Birds will not linger while exposed to this sound. The sounds are designed to confuse, disorient & intimidate pest birds to quickly scare them away from the effective area. These devices have the following description:

- Ultrasonic repeller sound waves that humans can't hear, but birds hate!
- Designed for use indoors or in semi-enclosed spaces
- Automated sound system uses four internal speakers to emit high frequency sound waves
- Easy to install, low-profile solution with solid steel construction
- Electronic oscillator tuned at 20kHz
- Safe and humane
- Covers up to 6,500 sq. ft.

2-3 Laser Control Pest Birds Indoors & Outdoors

Laser bird control is a well-documented way to chase away pest birds. Laser beams are perfect for scaring pest birds away without sound. Instead, colored laser beams that are detectable by the pests, force them away from your property for good.

Studies have shown that birds' eyes are particularly sensitive to green light, at wavelengths of ca. 525 nm. Laser solutions exploit this sensitivity. We provide a comprehensive market overview of available laser models. These devices have the following description:

- Multi-colored fat-beam lasers safely frighten pest birds away
- Lasers constantly change patterns to prevent acclimation
- Works day & night
- Humane & eco-friendly solution



IRAN KHODRO BIRD REPELLENT SYSTEM SOLUTION

- Works great indoors & in semi-enclosed spaces
- Covers up to 930 sq. m.
- State-of-the-art consumer-safe device









