

Laser chase of pigeons

WHAT SOLUTION DO WE OFFER?

Chase of pigeons from the facilities where they stay, using a laser.

SYSTEM PRESENTATION

High-tech product developed and manufactured in Slovenia. Consisting of a camera, autonomous computer vision and a guided laser. System development is completed. In 2020, we had several test installations on city facilities, and in 2021 the production of the first serial products will start.



Conceptual demonstration of operation

PURPOSE OF USE OF THE SYSTEM

- Drive pigeons away from monuments, buildings and other landmarks and industrial facilities where pigeons cause damage.
- Pigeon faeces do damage, spoil the appearance and leave (long) lasting marks on them.
- Prevention of damage and reduced cost of cleaning facades, roofs, eaves, shelves, monuments, etc.



OUR FINDINGS (pictures below)

- The system successfully and repeatably drove pigeons away from test facilities over a period of 14 days. During this time, it was not observed that the pigeons got used to the laser beam in any way and they always quickly perceived it as a danger.
- They are most sensitive to laser beam movements in the evening and early morning.
- After a successful testing period, the pigeons did not return to the facility en masse even after several months.



Actual images of system operation

HOW IT WORKS?

The system observes the facility in its field of vision. When the pigeons arrive, it turns on a laser beam that travels over the facility between the pigeons.

The pigeons perceive the laser beam as a danger and fly away in flocks. When they return, the process is repeated.

Windows can be excluded from the area of operation of the laser beam – so it does not disturb potential residents of the building. The laser used is not dangerous to humans and pigeons.



ADVANTAGES OF USE

- **Used on the exterior facades and roofs of buildings directly where pigeons are an issue.**
- **Easy installation on an adjacent building or pole.**
- **Very low power consumption.**
- **The system can be powered from the mains or with a smaller solar panel, which is not yet part of the offer.**
- **Excellent repeatability of bird chase.**
- **The laser only turns on in the presence of birds.**
- **Only the initial purchase cost, no maintenance costs.**
- **A durable and effective solution.**
- **We do not harm the birds, we just drive them elsewhere so that they do not stay in facilities where we do not want them.**
- **No need to use harmful chemicals.**

TECHNICAL SPECIFICATIONS

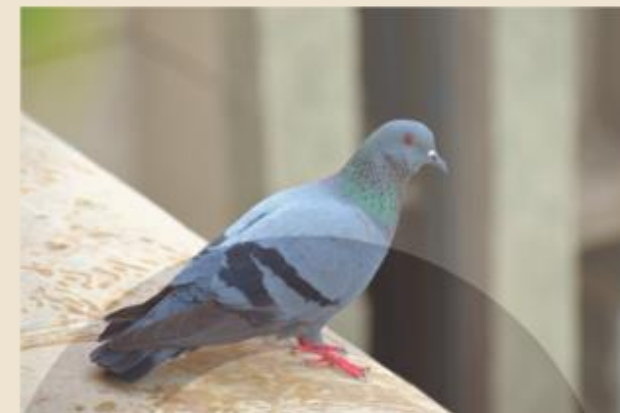
- Working area: horizontal 55°, vertical 45° (104x82m at a distance of 100m, 52 x 41m at a distance of 50m)
- Maximum working distance: 100m night mode, 50m day mode
- Connectivity: Wi-Fi IEEE 802.11b/g/n
- Power supply: 100-250VAC 50 / 60Hz
- Connected power: 30W
- Power consumption: 10W (pursuit), 5W (observation)
- Laser source: 532nm, 50mW (dot size > 1cm)
- IP protection level: IP65
- Temperature range: -10 to +50°C
- Size of the device: 258x115x120mm (LxWxH)
- Power supply size: 115x65x55mm (LxWxH)
- Weight: 1.2kg (device), 0.3Kg (power supply)
- Bracket: standard bracket for external cameras
- Distance of the device from the power supply: up to 6m (6m cable included)



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FACTS ABOUT PIGEONS

- They live in urban and less urban areas.
- There are approximately 20,000 of them in Ljubljana (data from 2015).
- They breed throughout the year and can have up to 6 litters.
- One pigeon produces 12kg of faeces per year.
- The cost of cleaning faeces from one building is approximately € 6,000 / year.
- They transmit a wide variety of diseases.
- Their faeces are corrosive.