

CLOVER

INDUSTRIAL INSPECTION DRONE SOLUTION



CLOVER is a drone solution for autonomous indoor industrial inspections (logistics and industrial warehouses, agricultural greenhouses, waste sorting centers...)

CLOVER solution has been designed to adapt different payloads, and is capable to fly autonomously in indoor environments from a few centimeters to more than 10 meters high.

It allows to increase the frequency of inventories, reduce the cost, time, and risks associated with its implementation.



An easy-to-deploy solution.

- No facility modifications
- No addition of fixed infrastructures
- No piloting skills required

| The solution is composed of :

- **Drone CLOVER**, an autonomous drone equipped with obstacle detectors for safe indoor navigation and guaranteed operator safety.
- **Universal Ground Control Station (Drako)**, a tablet application to supervise the inspections (mission execution, real time video feedback, security mechanisms) and declare specific Point of Interest (POI)
- **Cloud**, a powerful administration software to manage mapping, data processing, data visualization, export, reporting or even the management of a drone fleet.
- UWB tags, RF tags to be placed at various points in the area to be inspected, to ensure precise communication and localization indoors

Technical specifications

| DIMENSIONS

Width	570 mm
Length	590 mm
Height	146 mm

| WEIGHT

Empty weight	1150 g
Weight with battery	1600 g
Battery weight	450 g

| STANDARD PERFORMANCES

Movement speed (vertical)	30 to 80 cm/s
Minimum size of detected obstacles	2.5 cm ² at 5 m distance
Charging time (min)	90 min
Typical flight time (min)	18 min

| ENVIRONMENT

Temperature of use of the drone in flight (drone battery in discharge)	5°C to 45°C
Drone battery temperature on charge	5°C to 45°C
Tag in charge	5°C to 40°C
Tag in discharge	5°C to 45°C
Storage temperature (1month)	-20°C to 60°C
Storage temperature (1year)	-20°C to 30°C
Wind resistance	less than 3km/h
Obstacle avoidance distance	from 0.3 m to 6 m
Hygrometry	5 % to 90%
Atmospheric pressure in use	900 to 1040 hPa
Maximum altitude of use (m)	2000 m
Degree of pollution	PD2

| EXAMPLE OF PAYLOADS FOR AN INVENTORY DRONE

Scanners	Zebra PL 5000x3
Front LEDs	6
Ultrasonics	6
HD camera	Up to 2592*1944 px - 5 mégapixel

| FREQUENCY RANGES

WIFI (GHz)	[2.412 - 2.484] - [5.150 - 5.850]
UWB (MHz)	[6240 - 6739.2]

Identify inventory errors upstream before they become costly problems downstream