



Flyability's Mission Assessment Matrix

Mission Difficulty		
Low	Medium	High
Recommended Pilot Certification level		
Beginner Pilot	Advanced Pilot	Expert Pilot

Environment / Situational Awareness	Pilot position	In the inspected asset	Outside the inspected asset	Outside the inspected asset
	Piloting method	Line of sight	Non line of sight (first person view)	Non line of sight (first person view)
	Type of inspection	Local inspection	Systematic inspection (small % of entire facility)	Systematic inspection (large % of entire facility)
	Temperature	Between 10°C (50°F) and 40°C (104°F)	Between 0°C (32°F) and 10°C (50°F) Between 40°C (104°F) and 50°C (122°F)	Between 0°C (32°F) and 10°C (50°F) Between 40°C (104°F) and 50°C (122°F)
	Wind / airflow	None	Light wind (below 2m/s or 3.9 kt)	High speed winds (over 2m/s or 3.9kt) Strong draft in manhole/ chimney
	Surface to inspect	Not shiny	Shiny	Very shiny
	What are you looking for?	Large parts bigger than 10cm (4") Missing parts bigger than 1cm (0.4") Rust	Cracks or elements smaller than 10mm (0.4")	Small Deformations
	Visibility	Clean	Dusty	Very dusty Mist or moisture Smoke
	Size of the inspected area	Large room and no inspection in tight corners. dimension above 10x10m (32x32ft)	Medium room between 2x2m (6.6x6.6ft) and 10x10m (32x32ft)	Small area less than 2x2m or 6.6x6.6ft Pipe
	Size of narrowest passage	Very large opening	Manhole size between 45cm or (17.7") and 70cm (27")	Manhole between 40 cm or (16") and 45 cm (17.7")

Elios first risk analysis	Risks of damages	No imminent risk or object that could enter the cage in your flight area	Few objects could potentially enter or hook the drone's cage in the the flight area Presence of more than 2cm or 1" of water where the drone is unable to land	Objects could potentially fall onto the drone during inspection. Many objects that could enter the drone's cage Flying over water/Liquid
	Darkness of the room	No need for Lighting system LEDs allows you to understand where you are in pitch darkness in a room smaller than 20m (32ft)	Pitch dark and wide area. Lighting is not always sufficient for clear surface vsibility Partially lit	Strong source of light in certain area of the room Backlight and or flashing light
	Signal quality	No risk of losing connection No obstacles between the drone and the remote controller's antennas	Possible risk of losing connection A few obstacles between the drone and the remote controller's antennas but metallic environment	High risk of losing connection Obstacles between the drone and the remote controller's antennas but concrete environment
	Possibility to recover the aircraft in the event of an incident	No problem recovering the aircraft	Need to ask an entry permit	Impossible to recover the drone
	Consequence of a non-recovered aircraft, for the inspected asset, in the event of an incident	The aircraft poses no risk to the inspected asset if left in place	The aircraft poses no risk to the inspected asset if left in place	The aircraft poses a high risk to the inspected asset if left in place