

MARLYN COBALT SPECIFICATIONS

OPERATION

Take-off & landing area	2 x 2 m [7 x 7 ft] required
Set-up time	5 minutes
Automatic Flight	Fully automatic flight execution of preprogrammed mission; Automatic flight with position control by user.
Take-off & landing	Automatic
Cruise speed	65 km/h [40 mph] Indicated Airspeed
Wind resistance	Take off: 45 km/h [28 mph] / Cruise: 55 km/h [34 mph] / Landing: 45 km/h [28 mph]
Max flight time	50 mins Dependent on environmental conditions
Pre-flight checklist	Yes (integrated in Navigator)
Temperature range	-10°C to +40°C [14°F to 104°F] Above 35°C operating restrictions apply
GCPs	Not required with optional PPK module
Max. operating altitude	5000m [16,000 ft] above mean sea level (high altitude propellers required above 2000m)
Ingress protection	IP54 — It is not recommended to fly in fog, rain and snow

SAFETY

Safety Lights	Lights indicate Marlyn's status. When they are off Marlyn is safe to approach
Return to home	Single tap function returns Marlyn to home
Low Battery	Automatic return to home (configurable) Emergency Controls Possible
Lost Link	Automatic return to home (configurable)
Geofence	Both horizontal and vertical (configurable)
System Diagnostics	Built-in comprehensive pre-flight and in-flight checks ensure a safe flight
Avoidance Maneuvres	Pause, abort mission, perform an upward, sideward, or downward manoeuvre. Resume if clear
Manual flight override	Intuitively fly Marlyn to safety in both airplane and helicopter mode
Emergency Landing	Immediately land Marlyn in helicopter mode in case of approaching aircraft

SOFTWARE

Flight planning software	Navigator, GeoTagger (Inhouse developed) Included
System Requirements	Windows. CPU: Quad core 1.20GHz (i5-7Y57 Kaby Lake) or equivalent; RAM: 8 GB; Graphics: Intel HD Graphics 615 or equivalent; HDD: 100 MB + space for caching maps.
Flight Operation	Automatic Emergency Controls Possible
Input files	.KML, .KMZ, .GeoTIFF, .MBTiles, .WMTS
Mapping Options	Polygon, Linear Corridor (Time based triggering, position based triggering)

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HARDWARE

Drone type	Hybrid — VTOL (Vertical Take-Off and Landing) & fixed-wing
Max takeoff weight	6 kg [13.2 lbs] (Including batteries) Standard Configuration
Wingspan	1.6 m [5.2 ft] (With detachable wings for easy transportation in Marlyn's backpack)
Built in safety lights	2 Navigation lights, 2 Anti-collision lights — Over 1 km [0.6 miles] of visibility
Motors	4 electric motors (Including automatic pre flight check)
Telemetry link range	Default 7 km [4.3 miles] Alternative configurations possible
RC link range	Default 1 km [0.6 miles] (Alternative configurations possible)
Included accessories	Backpack, 4 batteries, battery charger, remote control, Navigator modem, in-field maintenance kit, battery case, Wind anemometer, cables, spare parts
Materials	Carbon fiber frame surrounded with durable structural EPP
RC Battery	3.7V 5000mAh Lithium-polymer battery. 8hrs Battery Life, 2.5hrs charge time. USB-C Charging. May be charged while in use.

BATTERY SPECIFICATIONS

Type of battery	Lithium-polymer battery	1 set (2 batteries) required to fly
Battery capacity	4500 mAh (99.9 Wh)	9000 mAh per battery set
Weight	670 g [24 oz] per battery	
Status lights	Transparent button with 5 imbedded LED status lights	
Size (LxHxW)	170 x 58 x 58 mm [6.7 x 2.3 x 2.3 in]	
Charging Time	30 - 60 min (60 min per battery set, when completely discharged)	
Air Travel Compliance	Each battery is under the maximum capacity requirements.	