



Mini UAS System

UAV theatre operations

UAV ISR Missions



Magline Mini UAS System has been conceived as ready to fly UAS system with high standard integrated payloads.

Integrated features include autopilot navigation and Tase 200 gimbal from Cloud Cap Technologies, for enhanced day/night vision capabilities to deliver ISR capabilities, i.e. tracking, Geo-location.

UAV crashworthy airframes & avionics suite, are designed for on the field easy interchangeability. Also, maintenance operations are simple and easily manageable allowing to reduce operations cost.

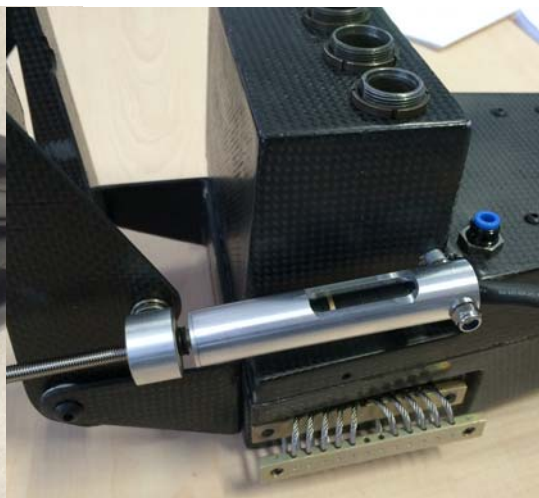
Bungee launch, (hand with low weight configurations), and auto land recovery are available for operation in environments where no landing strip is available

Cruiser mini features gimbal retraction mechanism in order to enable belly landings with gimbals on board, and allows for longer flights as it helps reducing drag while not in operation theatre.

UAS set-up, is ready to fly in less than 5 minutes in a one man operation, which can be delivered from a ground vehicle, or else a standalone operation.



Wing Batteries



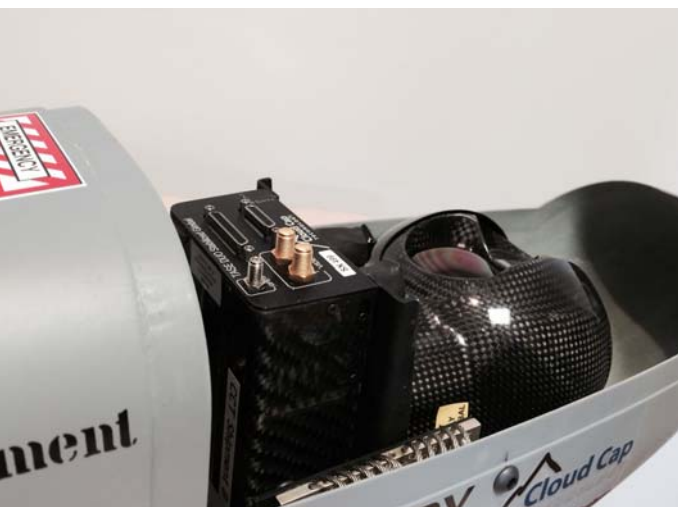
Crashworthy Avionics Box (STS MIL Conectors)



Integrated Gimbal Retract

Integrated Items

Equipment	Description	Availability	Integrated
Platform	<ul style="list-style-type: none"> Cruiser Mini UAV Frame Twin Electric motors Lilon batteries (long life high discharge current) 	2x 30Ah / 14.4V	Yes
Electrical Kit	<ul style="list-style-type: none"> Batt Only / Power Boards AP/Servos/Payload wiring 	Yes MIL Connectors	Yes
Comm Kit	<ul style="list-style-type: none"> Video-Data Omni antenna 	Yes	Yes
Autopilot	Piccolo SL (Full autonomous T.O. and Landing) Incl Futaba CAG 10 Transmitter for manual operation	Yes	Yes
Autoland: DGPS Laser Alt	<ul style="list-style-type: none"> DGPS: +/-2 m accuracy Laser Alt 10Hz +/-10cm accuracy 	Available Available	Yes
Navigation System	Piccolo Command Center	Yes	Yes
Camera Payload	<ul style="list-style-type: none"> Gimbals www.cloudcaptech.com Tase 200 Gimbal Retract mechanism 	Yes	Yes
Camera Software	Viewpoint	Yes	Yes
Video System Transmitter Receiver	Digital Dual Simultaneous channel or single HD option with Dual vision equipment.	Yes	Yes
Omni directional Antenna	<ul style="list-style-type: none"> Video Omni Data Omni 	Yes	Yes
Tracking Antenna Software	Available Plugin for PCC	Yes	Yes
GCS	Portable GCS embedded GS in rugged computer.	Yes Yes	Yes Yes
GCS Vehicle / Trailer integrated	GCS with Lab Environment dual area (mission/payload).	Yes	Yes
Ground Equipment	Power Gen Set / Extra battery Backpack	Yes	Yes
Training Package	<ul style="list-style-type: none"> End User Integrator Level 	Yes	Yes
Carrying Cases	PGS in Plastic Pelican Case, Rugged case for A/C transport	Yes	Yes



Performance & Data

CRUISER mini UAS

Data	Performance (verified)	Comments
Empty Weight	6Kg Cruiser Mini	No fuel, no payload
MTOW	10Kg MTOW Recommended long life LiFe batt if long loiter	Electrical batteries
Wing Span	2.6m	
Range @MTOW w max. payload	<ul style="list-style-type: none"> • 3h • 100km 	<ul style="list-style-type: none"> • battery sets with backups
Service Ceiling Operational altitude	<ul style="list-style-type: none"> • 5000m (bungee launch) • 300-500m above ground for best image performane 	<ul style="list-style-type: none"> •
Range for Lost Communications	<ul style="list-style-type: none"> • 85Km data link with Tracker, direct LOS • 30km with Omni, direct LOS 	
Range for Video Communications	<ul style="list-style-type: none"> • Digital Dual video link (simultaneous channels) • 85km with tracker direct LOS • 30 km with Omni direct LOS 	Video performance requires also clean line between GCS antenna and the aircraft.
MaxCruise Speed	22 m/s up to 30m/s	higher with smaller wing (lower payload)
Cruise 65% pwr Cruise 75% pwr	<ul style="list-style-type: none"> • 22 m/s • 30 m/s 	
Setup time with PGCS (1 Pax)	5 min	
Total Number of Boxes / Cases	Aircraft, GCS computer.	
Fuel Consumption	Battery 2Kg for 3h flight depending on payload	Tbd for ea different configuration

- Specs depend on final configuration and subjected to component availability.
- Note: The Image below corresponds to a test flight in Egypt for Air Defence Group. Image is not used for marketing purposes.

