



# A-techSYN

UNMANNED AERIAL SYSTEMS

## ADVANCED TECHNOLOGIES WITH SYNERGY



[www.a-techsyn.com](http://www.a-techsyn.com)

# PRODUCTS AND SERVICES

**UNMANNED  
AERIAL  
VEHICLES**



**TARGET  
DRONES**



**UAS  
COMPONENTS**



**CONTROL SOFTWARE,  
DATA ANALYSIS AND  
ANALITICS**

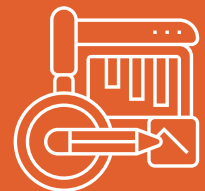


**SUBJECT MATTER  
EXPERT (SME)  
SERVICES**

(Civil Aviation, Airworthinees, Flight Permissions)



**R&D,  
ENGINEERING,  
INTEGRATION  
SERVICES**



**SYSTEM TRAINING**

Remote Pilot, UAV Operator, Trainer and  
Mechanic Training



**MAINTENANCE,  
REPAIR AND OVERHAUL  
(MRO) SERVICES**



# CGT50-VTOL UAV



The CGT50-VTOL is a 4,71 m wingspan T-Tail UAV. It uses electric powered motors for takeoff and landing and does not require a runway or catapult. It is a composite airframe with 5 kg payload capacity, powered by a petrol engine. The low fuel consumption enables a safe endurance of 6 hours.

## Technical Specifications

- FULLY AUTONOMOUS
- VERTICAL TAKE-OFF AND LANDING
- 6-HOUR ENDURANCE
- 18 K FEET MAXIMUM ALTITUDE
- 55 KG MTOW
- 5 KG USEFUL LOAD
- 48 KNOT TRAVEL SPEED
- SWARM CAPABILITY
- INDIGENOUS ADAPTIVE FLIGHT CONTROL SYSTEM
- SENSE AND AVOID / DETECT AND AVOID READY
- UTM READY
- REALTIME FPV VIDEO FEED
- SMART SELECTIVE COMMUNICATION
- TAILOR-MADE CUSTOMIZED MANUFACTURING
- PAYLOAD AND DATALINK AGNOSTIC
- SATELLITE CONTROL (OPTIONAL)
- 50-150 KM RF COMMUNICATION RANGE
- DUAL FREQUENCYREDUNDANT C2 DATA LINK
- ADS-B TRANSPONDER ON-BOARD CAN NETWORK

# CGT50-VTOL (VERTICAL)



## Commercial Applications

- Pipeline, Power Line, Road and Railway Inspection and Monitoring
- Construction and Maintenance Work Inspection and Progress Monitoring
- Precision Agriculture
- Mining
- Green Energy
- Environmental Impact Assessment and Protection
- Wildfire Prevention, Detection, Surveillance and Suppression

## Defense and Homeland Security

- Istar (Intelligence, Surveillance, Target Acquisition and Reconnaissance)
- Airbon Security of Strategic Compounds, Infrastructure and Moving Convoys
- Shoreline, Borderline and Maritime ISR
- Counter Insurgency Applications
- Crime Control and Law Enforcement

- Wildlife Monitoring And Conservation Mapping
- Search And Rescue
- Transportation Of Small Cargo Over Long Distances
- Medical Deliveries
- Pop-up Communication Network Relay

- Crowd Monitoring
- Disaster Management
- Forest and Wildlife Conservation
- Traffic Monitoring
- CBRN Detection
- Drug Interdiction



# CNG-V UAV Target Drones



## STRONG AND CAPABLE AIRBORNE PERFORMANCE

CNG-VI UAV can be used more than 20 times after landing thanks to its composite structure containing kevlar.

### Technical Specifications

- FULLY AUTONOMOUS
- CATAPULT TAKE-OFF, PARACHUTE LANDING
- 2-HOURS ENDURANCE
- 18 K FEET MAXIMUM ALTITUDE
- 4 KG USEFUL LOAD
- 40 M/SEC MAXIMUM SPEED
- 24 M/SEC TRAVEL SPEED
- 23 KG TAKE-OFF RANGE
- 70 KM RANGE

# CNG-V JET UAV Target Drones



## THE FASTEST OF CNG-V JET UAV SERIES

CNG-V JET UAV delivers a high performance with its 45-minute endurance and 100m/sec maximum speed.

### Technical Specifications

- FULLY AUTONOMOUS
- CATAPULT TAKE-OFF, PARACHUTE LANDING
- 45-MINUTE ENDURANCE
- 18 K FEET MAXIMUM ALTITUDE
- 4 KG USEFUL LOAD
- 100 M/SEC MAXIMUM SPEED
- 60 M/SEC TRAVEL SPEED
- 35 KG TAKE-OFF WEIGHT
- 80 KM RANGE
- HOT NOSE (OPTIONAL)
- PASSIVE RADAR ENHANCER (OPTIONAL)
- ACTIVE RADAR ENHANCER (OPTIONAL)



# PNEUMATIC LAUNCHER

## HIGH PERFORMANCE OF LIGHTNESS

Thanks to its light and fast system, it takes only 10 minutes to install it, and it delivers a high performance during hundreds of launches.

### Key Features

- ALUMINUM PIPE, SHEET, AND LEGS
- STEEL AIR TANK
- SOLENOID VALVE
- SIMPLE AND QUICK INSTALLATION
- DESIGNED FOR HUNDREDS OF LAUNCHES
- SMART SECURITY FEATURES
- SIMPLE AND EASY MAINTENANCE PROGRAM
- 25 M/SEC MAXIMUM LAUNCH SPEED
- 10 MIN INSTALLATION AND DISASSEMBLY TIME
- 1735 N MAXIMUM LAUNCH ENERGY



### Technical Specifications

- 9~12° LAUNCH ANGLE
- 725 CM MOUNTED TOTAL RAIL LENGTH
- 110 CM LAUNCH HEIGHT
- 350 CM DISASSEMBLED TOTAL RAIL LENGTH
- 113 KG TOTAL WEIGHT
- 100 CM COMPRESSOR UNIT LENGTH
- 40 KG MAXIMUM UAV WEIGHT
- 25 M/SEC MAXIMUM LAUNCH SPEED
- 20 M/SEC MAXIMUM LAUNCH PRESSURE
- 1735 N MAXIMUM LAUNCH ENERGY
- -17°C - +50°C OPERATING TEMPERATURE
- 10 MIN INSTALLATION AND DISASSEMBLY TIME

# CONTROL SYSTEMS AVIONICS MINI

## INDIGENOUS AND ADAPTIVE

A domestic flight control computer produced by A-techSYN that offers over 3000-hour flight experience and is compatible with fixed wing, delta wing, H-Tail, T-Tail UAV's and drones.

Avionics Mini is a domestic flight control computer produced by A-techSYN AVIATION.



### ANOMALY DETECTION

- EXCESSIVE  
AILERON  
TRIMS
- SHORTAGE  
OR LACK  
OF IMPULSE
- REQUIRED  
FLIGHT  
BEHAVIOUR
- REQUIRED  
TARGET  
DEVIATION
- REQUIRED  
DEVIATION  
FROM MISSION  
ROUTE

### Technical Specifications

- FULLY AUTONOMOUS
- UAVERA RCS COMPATIBILITY
- 7 V-17 V DC POWER INPUT
- ESD PROTECTION
- INVERSE VOLTAGE PROTECTION
- 6 V 40 A PMU
- -20° - +80° OPERATING TEMPERATURE

### Dual Redundant Sensors

- AIR SPEED SENSOR
- IMU (2 PCS)
- BAROMETER (2 PCS)
- GPS (2 PCS)
- DIGITAL COMPASS (2 PCS)
- VOLTAGE SENSOR

### Mechanical Specifications

- 165 MM LENGTH
- 115 MM WIDTH
- 45 MM HEIGHT
- 640 G WEIGHT



# CONTROL SYSTEMS

## MISION CONTROL SYSTEM



# 3D PERFORMANCE IN

## INTEGRATED FLIGHT

## MONITORING

You can monitor your unmanned aerial vehicle on the integrated 3D map through the RCS, and broadcast your flight data over a designated network.

### Technical Specifications

- USER-FRIENDLY INTERFACE
- MISSION PREVIEW
- REAL-TIME FLIGHT CRITICAL INFORMATION DISPLAY
- BROADCAST YOUR FLIGHT DATA OVER A DESIGNATED NETWORK
- MISSION REPLAY
- HANDOVER FEATURE
- LIMITABLE FLIGHT PARAMETERS
- INTEGRATED 3D MAP
- MULTIPLE UAV/SWARM UAV SUPPORT
- PRE-FLIGHT CONTROLS
- MISSION DEFINITION WITH CLICK-DRAG-DROP METHOD
- CONTROL OF USEFUL LOAD SERVOS

# CONTROL SYSTEMS

## GROUND DATA TERMINAL

# RELIABLE C2 AND DATA

## OVER LONG DISTANCES

The Ground Data Terminal is a stand-alone and IP based communication module. It does not need to be manned and can reside anywhere as long as it is connected to the same network as the GCS.

RF communication is SSL Encrypted supports MESH networks. Standard systems have a 50 km RLOS range but can be customised to ranges up to 250 km.

### Advanced Features :

- IP Communication with the GCS
- Broadcast UAV and Payload data to multiple GCS
- Simultaneous Use of Multiple Frequencies
- Omni antennas for close range communication
- Directional antennas for long range communication.
- High tracking accuracy
- Customisable Frequencies (L-Band, S-Band, C-Band)
- Customizable Gain (2 dBi-30 dBi)







# ADVANCED TECHNOLOGIES WITH SYNERGY

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