uAvionix Group 3 UAS Enterprise AutoPilot

George

George combines the flexibility and over a decade's worth of open-source innovation in UAS autopilots with the robustness of a certifiable DAL-C hardware and a DAL-C safety and sensor processor. George has the aircraft.

CubePilot

George is built on the trusted and proven CubePilot autopilot. Migrate your existing Ardupilot or PX4 software and configuration to George's robust DO-254 DAL-C hardware.

Lightweight and low power consumption

UAS have limited energy resources that need to support your mission. George is engineered specifically to minimize size, weight, and power consumption for longer flight times and larger payloads.

Certifiable and tested to aviation standards

George's safety and sensor processing system is engineered to DO-178C DAL-C while the DO-254 DAL-C hardware platform is engineered to DO-160G and MIL-STD-810H environmental standards.

SkyLine Cloud-Based C2 Compatible

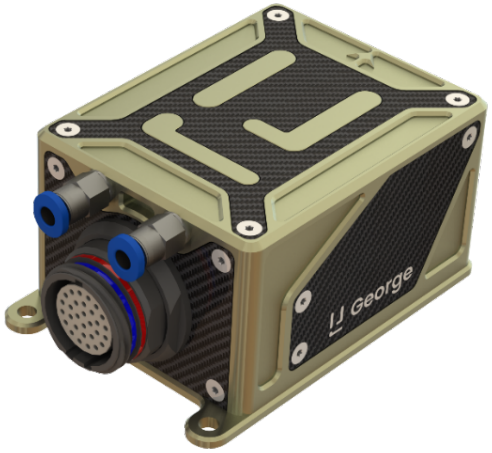
Integrate George with microLink 2x2 MIMO for ISM band operations or SkyLink for C-band protected-spectrum and begin communicating to ground radios for secure and reliable BVLOS missions.

Detect and Avoid (DAA) Ready

Enable ADS-B IN by integrating pingRX Pro to see nearby aircraft. For high altitude and mission-critical operations, add the ping200X transponder to be seen by surrounding aircraft and for access to controlled airspace.

Works with truFYX, The most reliable GPS

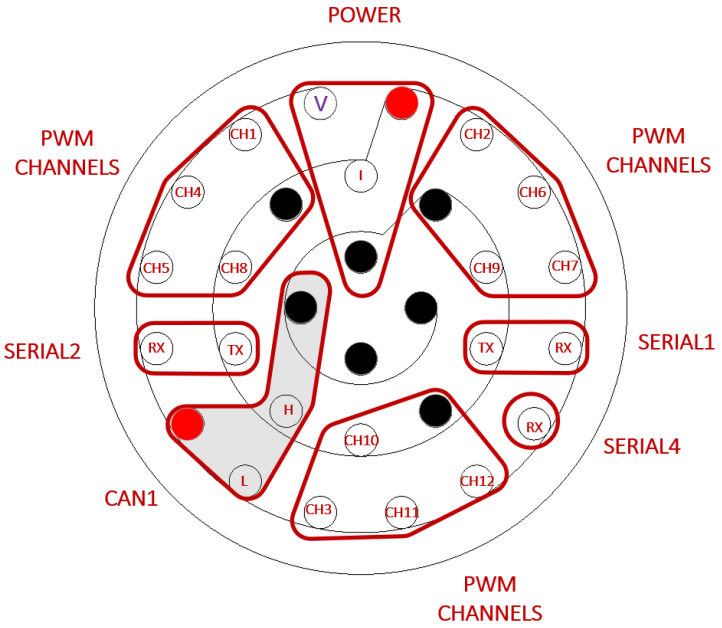
George seamlessly integrates with **truFYX**, uAvionix's TSO-C145e GPS. When the credibility and integrity of your position source matters, you can trust truFYX.



Specification	Value
Input Voltage/Power	14 or 28V 2.5W
Size	45x75x32mm
Weight	99 grams
Operating Temp	-10° to 55° C
Internal Peripherals	
Core	cubeOrange
Compass	3 axis RM3100
Airspeed	SDP33
Power Supply	
External Interfaces	
Servo/ESC Outputs	12
RS232 Serial IO	2.5
UAVCAN IO	1
ADC Inputs	2
Options	
truFYXmicro TSO-C145e GPS Sensor	UAV-1005511-001
microLink skyStation	UAV-1003057-001
ADS-B antenna	UAV-1004675-002
microLink antenna	UAV-1004675-001

Electrical Specification

	LEMO P	Pin Name	Description	Resource	IO	Level
EXTERNAL CONNECTIONS	1	VOLTAGE	Main Voltage Sense		Input	12S
	2	IO_CH1	PWM_CH1	Servo / ESC	Output	3.3V
	3	IO_CH4	PWM_CH4	Servo / ESC	Output	3.3V
	4	IO_CH5	PWM_CH5	Servo / ESC	Output	3.3V
	5	SERIAL2_RX	TELEM 2 Rx	ZPX-B Mode 5 IFF	Input	EIA/TIA-232
	6	5V_CAN1			Power	5V
	7	CAN1_L	CanBus		IO	3.3V
	8	IO_CH3	PWM_CH3	Servo / ESC	Output	3.3V
	9	FMU_CH3	PWM_CH11	Servo / ESC	Output	3.3V
	10	FMU_CH4	PWM_CH12	Servo / ESC	Output	3.3V
	11	SERIAL4_RX	GPS PVT data		Input	EIA/TIA-232
	12	SERIAL1_RX	TELEM 1 Rx	SkyLink C-band C2	Input	EIA/TIA-232
	13	IO_CH7	PWM_CH7	Servo / ESC	Output	3.3V
	14	IO_CH6	PWM_CH6	Servo / ESC	Output	3.3V
	15	IO_CH2	PWM_CH2	Servo / ESC	Output	3.3V
	16	V_BUS	Aircraft Power		Power	2S-12S
	17	CURRENT	Main Current Sense		Input	3.3V
	18	GND	Aircraft Ground		Power	
	19	IO_CH8	PWM_CH8	Servo / ESC	Output	3.3V
	20	SERIAL2_TX	TELEM 2 Tx	ZPX-B Mode 5 IFF	Output	EIA/TIA-232
	21	CAN1_H	CanBus		IO	3.3V
	22	FMU_CH2	PWM_CH10	Servo / ESC	Output	3.3V
	23	GND	Aircraft Ground		Power	
	24	SERIAL1_TX	TELEM 1 Tx	SkyLink C-band C2	Output	EIA/TIA-232
	25	FMU_CH1	PWM_CH9	Servo / ESC	Output	3.3V
	26	GND	Aircraft Ground		Power	
	27	GND	Aircraft Ground		Power	
	28	GND	Aircraft Ground		Power	
	29	GND	Aircraft Ground		Power	
	30	GND	Aircraft Ground		Power	
INTERNAL CONNECTIONS			I2C1_SCL	RM3100 Compass	IO	3.3V
			I2C1_SDA		IO	3.3V
			I2C2_SCL	SDP33 Airspeed Sensor	IO	3.3V
			I2C2_SDA		IO	3.3V



Mechanical Specification