



# Northwest UAV

A GLOBAL COMPANY



*Where Precision and Reliability Soar!*  
PROPULSION & PAYLOAD INTEGRATION SPECIALISTS



INTEGRATED PRODUCTION  
& MANUFACTURING



ENGINE & ENDURANCE  
TESTING



ENGINEERING DESIGN  
& DEVELOPMENT



ELECTRICAL WIRING  
& HARNESS SHOP



CONUS & OCONUS  
MAINTAINERS



DRONE AIRMEN/  
REMOTE PILOTS

# ABOUT US

Chris Harris, Founder/President, Northwest UAV America's trusted leader in UAV propulsion and integrated solutions, Northwest UAV (NWUAV), continues to engineer the future of unmanned power systems. Through innovation, NWUAV delivers unmatched capabilities to address modern challenges and navigate the harshest environments. For over 15 years, our experienced team has equipped customers with reliable, cost-effective propulsion solutions — propelling systems to new heights and unlocking new missions.

From humble beginnings in a small-town Oregon garage to an expansive campus that offers the unmanned industry standard-setting engineering and propulsion — NWUAV is paving the way for the future of unmanned systems in heavy-fuel propulsion, more recently, hydrogen fuel power. After over 15 years of business, delivering over 18,000 engines, and over one million flight hours, NWUAV continues to push the unmanned systems industry to expect and exceed aviation-grade standards, both domestically and internationally.

Offering a wide variety of in-house products and services from an experienced team, partner products, and enduring vendor relationships – NWUAV's ecosystem of products and services means customers can seek out a singular product or service from NWUAV or a complete solution without outsourcing. NWUAV's carefully constructed ecosystem includes off-the-shelf products, a machine shop, a 3D printing sister company, access to an FAA-certified UAS Test Range, a CMM machine, an engine run room, a full-stack engineering team, and production and wiring teams manufacturing in an AS9100/ISO9001 certified operation.

As a small business, NWUAV proudly offers American Made Aviation Grade products. In addition, NWUAV continually researches and develops new unmanned propulsion solutions. NWUAV's most noteworthy products are designed and manufactured in-house; the NW-44 Heavy-Fuel Engine and the NW-88 Heavy-Fuel Engine support customers domestically and internationally. Northwest UAV expects the NWFC-1500 hydrogen fuel cell to follow a similar path, with interest already shown domestically and internationally

At Northwest UAV, we seek to propel our customers to new heights with on-time, high-quality, affordable goods and services.



For more information please call or visit [www.nwuav.com](http://www.nwuav.com) to download the data sheet for additional details. Engine application is dependent on airframe factors including: Aerodynamics, propeller, and operational concept. Please contact NWUAV for guidance.



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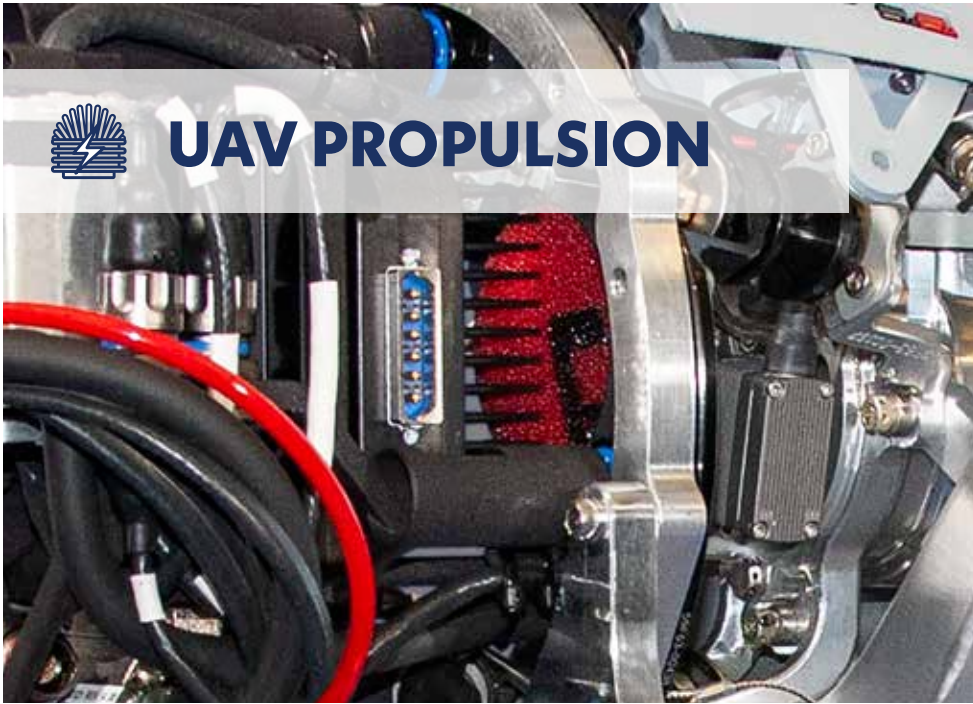
## AS9100/ISO9001 AEROSPACE CERTIFICATION

We meet or exceed our AS9100D/ISO 9001:2015 Quality Management Certification for design, development, manufacture, maintenance, repair, overhaul, and testing of gasoline and heavy-fuel engines.

- DCAA Compliant
- ERP Document Control
- Internal Audits
- Aviation-grade Standards
- Quality Training Programs
- Supply Chain Management



# UAV PROPULSION



## Professional Grade Small UAV Propulsion Systems

If you need reliability and endurance packed into a small propulsion system for your unmanned project, count on **Northwest UAV**. From our small fuel efficient and quiet combustion and hydrogen fuel cell propulsion systems to the powerful **HIRTH Engines** to the versatile 4-stroke rotary valve **RCV Engines**. At NWUAV, we offer a variety of small multi-fuel UAV propulsion systems and accessories to assist you in choosing your COTS, build-to-print, or custom propulsion system solution that fits your needs.



## PROPULSION SYSTEMS

AS9100 REV D | ISO9001



**~28,000 Operational Hours**



America's trusted leader in UAV propulsion and integrated solutions, NWUAV continues to engineer the future of unmanned power systems. Through innovation, NWUAV delivers unmatched capabilities to address modern challenges and navigate the toughest environments.

For over 15 years our experienced team has equipped customers with reliable, cost-effective propulsion solutions – propelling systems to new heights and unlocking new missions.

### NWUAV NW-44 | 3.5 HP Single-Cylinder Multi-Fuel Engine

The NW-44 is the most configurable small UAV propulsion system on the market today. Designed for aircraft in the 18 to 34 kg (40-75 lb)<sup>1</sup> weight class, this UAV engine is being scaled to larger and multiple cylinder configurations, making this unique technology available on a larger range of aircraft.

- Multiple generator output configurations available to fit customer requirements
- Custom 280-Watt direct drive generator with a 6/12/21 or 28 volt Generator Control Unit (GCU); ~280-Watts available, 30-Watts for engine, 250-Watt for payload and aircraft
- Conformal aerodynamic tuned muffler; light-weight and quiet
- Conformal design mitigates unwanted parasitic drag, which increases net fuel-efficiency
- Manufactured in the USA

Type (Block IV)	2-Stroke/Single-Cylinder
Weights <sup>1</sup>	
Core <sup>2</sup>	3402 ± 100 grams
Avionic (Puck)	933 ± 100 grams
PMU <sup>3</sup>	4335 ± 100 grams
Displacement	43.6 cc
Bore / Stroke	38.99 mm / 36.53 mm
Max. Cont. Speed	7500 rpm
Power Rating	3.5 hp @ 7250 rpm
BSFC <sup>4</sup> @ Cruise	384-442 g/kw-hr
5000 rpm @ Sea Level	0.63-0.73 lb/hp-hr
Ignition	Twin 25kv CDI
Cooling	Air with ACHT Control
Generator Regulator	6/12/21 or 28 VDC, 280 W
Generator	On-Shaft Permanent Magnet Alternator
Fuel System	FADEC with EFI
Fuel Type	Gasoline/Jet Fuel
Fuel to Oil Mixture	32:1 Ratio
Preferred Oil Type	Bel-Ray H1R
ECU Data Storage	1,000 hours @ 1Hz Recording Rate
TBO (estimate)	400-500 hours

For more information please call or visit [www.nwuav.com](http://www.nwuav.com) to download the data sheet for additional details. Engine application is dependent on airframe factors including: Aerodynamics, propeller, and operational concept. Please contact NWUAV for guidance.



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## NWUAV NW-88 | 7.2 HP Two-Cylinder Multi-Fuel Engine

An aviation-grade, multi-fuel engine for Group II and III UAVs in the 34 to 68 kg (75-150 lb)<sup>1</sup> weight class. As a purpose-built engine, designed ready to fly, the NW-88 is the most efficient and configurable UAV engine on the commercial market, offering the capability to carry larger payloads, and enable low detectability and long endurance.

- RPM hold capable
- Custom 280-Watt direct drive generator with a 6/12/21 or 28 volt Generator Control Unit (GCU); ~280-Watts available, 30-Watts for engine, 250-Watt for payload and aircraft.
- Interfaces with popular autopilots
- Conformal design mitigates unwanted parasitic drag, which increases net efficiency
- Manufactured in the USA

<b>Type</b>	2-Stroke/2-Cylinder
<b>Total Weight<sup>1/5</sup></b>	7400 ± 200 grams
<b>Displacement</b>	88 cc
<b>Max. Cont. Speed</b>	7500 rpm
<b>Power Rating</b>	7.2 hp @ 7250 rpm
<b>BSFC @ Cruise</b>	395-456 g/kWh
<b>5000 rpm @ Sea Level</b>	0.65-0.75 lb/hp-hr
<b>Ignition</b>	Twin 25kv CDI Per Cylinder
<b>Cooling</b>	Air with ACHT Control
<b>Generator Regulator</b>	6/12/21 or 28 VDC, 280 W Optional 600 W
<b>Generator</b>	On-Shaft Permanent Magnet Alternator
<b>Fuel System</b>	FADEC with EFI
<b>Fuel Type</b>	Gasoline/Jet Fuel
<b>ECU Data Storage</b>	1,000 hours @ 1Hz Recording Rate
<b>TBO (estimate)</b>	400-500 hours



## NWUAV NW-230 | 15-18 HP Two-Cylinder Multi-Fuel Engine

NWUAV purpose-built NW-230 EFI multi-fuel (heavy-fuel/gas) engine designed, developed, and built for Group III unmanned aircraft systems in the 90 to 160 kg (198-352 lb)<sup>1</sup> range, long-endurance aircraft, and portable power generation.

The NW-230 is the most efficient and configurable UAV engine on the commercial market. With attention to design for increased engine life, improved maintenance cycles, endurance, and reduced fuel burn.

- Scalable for Use in a Broad Range of Aircraft
- Logistic Fuels Compatible
- Best Power-To-Weight Ratio
  - Larger Payloads
  - Higher Climb Rates
  - Faster Cruise Speeds
- Easy Maintenance
- Technical Support Included
- Telemetry Trend Monitoring
- Manufactured in the USA

<b>Type</b>	2-Stroke/2-Cylinder
<b>Weight<sup>1/6</sup></b>	10 kg ± 200 grams
<b>Displacement</b>	230 cc
<b>Bore</b>	54 mm
<b>Stroke</b>	50 mm
<b>Peak Torque</b>	~15 ft/lbs
<b>Horsepower Range<sup>7</sup></b>	15-18 hp
<b>BSFC Range</b>	Call for Data
<b>Ignition</b>	Twin 25kv CDI Per Cylinder
<b>Cooling</b>	Air with ACHT Control
<b>Generator Regulator</b>	Customer Specific
<b>Generator</b>	Customer Specific
<b>Fuel System</b>	FADEC with EFI
<b>Fuel Type</b>	Gasoline/Jet Fuel
<b>TBO (estimate)</b>	500+ hours



## NRL/NWUAV NWFC-1500 | Proton Exchange Membrane (PEM) Fuel Cell

### Why Use a Fuel Cell?

- Low maintenance
- Low operating cost
- Low audible signature
- Instant-on — remote operation
- Clean power with a low thermal signature
- More energy efficient when compared to other energy sources

### Features

- Lightweight
- Small envelope (compact)
- Quickstart capability <1s
- Scalable to your power requirements
- System layout is customizable to fit your physical space
- Long term storage capable in fueled condition (1+ years)
- Manufactured in the USA

<sup>1</sup>Depending on mission requirements and aircraft configuration. | <sup>2</sup>Core = EMU and ACHT. | <sup>3</sup>Core weight + avionic weight = total PMU weight. No prop, no prop hardware, no dog drive. | <sup>4</sup>BSFC numbers do not contain oil consumption. | <sup>5</sup>Total Weight = With propeller and interface harness. | <sup>6</sup>Weight does not include Generator, Generator Controller/Rectifier, or Propeller. Includes: ECU, Muffler, Engine Mount, ACHT, and Engine Harness. | <sup>7</sup>Depending on propeller/RPM.



# UAV PROPULSION



## HIRTH ENGINES

Authorized Hirth Distributor/MRO  
For North and Central America

Hirth the future of propulsion technology. In addition to custom-made adaptations of our engines we undertake a range of R&D programs. These are focused on our own core product lines, including heavy-fuel and other special requirements. We combine heritage, expertise, quality and investment in technology when tooling and testing to create an efficient production environment with unmatched attention to detail. At Hirth we continually develop state-of-the-art technology applied to the proven two-stroke principle. These include engine models independent of mounting position that offer compactness, simplicity and a unique power to weight ratio for special applications.



### HIRTH 41 Series / 4103 | 8 HP 2-Cylinder Gasoline Engine

- Latest unmanned aerial vehicle (UAV) technology
- Exceptional reliability
- Maximum performance in extreme conditions

<b>Type (Opposed)</b>	2-Cylinder/2-Stroke
<b>Displacement</b>	6.3 in <sup>3</sup> / 100 cm <sup>3</sup>
<b>Stroke</b>	1.34 in / 34 mm
<b>Bore</b>	1.73 in / 44 mm
<b>Max. Performance<sup>1</sup></b>	8 hp @ 6700 rpm
<b>Speed Range</b>	1800-6500 rpm
<b>Fuel Mixture<sup>2</sup></b>	Gasoline/Oil 1:80
<b>Weight<sup>3</sup></b>	7.5 lb / 3400 g



### HIRTH 42 Series / 4201 | 15 HP 2-Cylinder Gasoline Engine

- Best performance for UAV
- State-of-the-art engine technology
- Ultimate control in extreme conditions

<b>Type (Opposed)</b>	2-Cylinder/2-Stroke
<b>Displacement</b>	11.5 in <sup>3</sup> / 183 cm <sup>3</sup>
<b>Stroke</b>	1.57 in / 40 mm
<b>Bore</b>	2.13 in / 54 mm
<b>Max. Performance<sup>1</sup></b>	15 hp @ 6500 rpm
<b>Speed Range</b>	1800-6500 rpm
<b>Fuel to Oil Mixture</b>	Gasoline/Oil 1:80
<b>Weight<sup>3</sup></b>	12.5 lb / 5700 g



### HIRTH 42 Series / 4202 HF | 15 HP 2-Cylinder Heavy-Fuel Engine

- Best performance for UAV
- State-of-the-art engine technology
- Starter-Generator-System

<b>Type (Opposed)</b>	2-Cylinder/2-Stroke
<b>Displacement</b>	11.5 in <sup>3</sup> / 183 cm <sup>3</sup>
<b>Stroke</b>	1.57 in / 40 mm
<b>Bore</b>	2.13 in / 54 mm
<b>Max. Performance<sup>1</sup></b>	15 hp @ 6500 rpm
<b>Speed Range</b>	2500-6500 rpm
<b>Fuel Mixture<sup>2</sup></b>	Jet Fuel
<b>Weight<sup>3</sup></b>	25 lb / 11.5 kg

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### HIRTH 33 Series / F-33 AS | 30 HP Single-Cylinder Gasoline Engine

- Lightweight
- Best suited for light aviation and powered parachutes

Type	1-Cylinder/2-Stroke
Displacement	19.1 in <sup>3</sup> / 312 cm <sup>3</sup>
Stroke	2.72 in / 69 mm
Bore	2.99 in / 76 mm
Max. Torque	23.8 ft-lb @ 5800 rpm (AS)
Max. Performance <sup>1</sup>	30 hp @ 6500 rpm (AS)
Fuel Mixture <sup>4</sup>	Gasoline/Oil 1:80-100
Weight <sup>3</sup>	28 lb / 12.7 kg



### HIRTH 23 Series / F-23 Lightweight | 50 HP 2-Cylinder Gasoline Engine

- World standard power-to-weight ratio
- Fit to take on any challenge in light aviation

Type (InLine)	2-Cylinder/2-Stroke
Displacement	31.79 in <sup>3</sup> / 521 cm <sup>3</sup>
Stroke	2.52 in / 64 mm
Bore	2.83 in / 72 mm
Max. Torque	38.9 ft-lb @ 6300 rpm
Max. Performance <sup>1</sup>	50 hp @ 6500 rpm
Fuel Mixture <sup>4</sup>	Gasoline/Oil 1:80-100
Weight <sup>3</sup>	48.4 lb / 22 kg



### HIRTH 35 Series / 35HF | 60 HP 2-Cylinder Gasoline Engine

- Maximum performance in extreme conditions
- Highest power-to-weight ratio
- NATO compliant

Type (InLine)	2-Cylinder/2-Stroke
Displacement	38.1 in <sup>3</sup> / 625 cm <sup>3</sup>
Stroke	2.27 in / 69 mm
Bore	2.99 in / 76 mm
Max. Torque	57 ft-lb @ 6000 rpm
Max. Performance <sup>1</sup>	60 hp @ 6300 rpm <sup>5</sup>
Fuel Mixture	Jet Fuel
Weight <sup>3</sup>	79 lb / 36 kg



### HIRTH 32 Series / 3203 | 65 HP 2-Cylinder Gasoline Engine

- Ultimate power-to-weight ratio
- Ideal for light aviation, hovercraft, gyro or helicopters

Type (InLine)	2-Cylinder/2-Stroke
Displacement	38.1 in <sup>3</sup> / 625 cm <sup>3</sup>
Stroke	2.27 in / 69 mm
Bore	2.99 in / 76 mm
Max. Torque	52.8 ft-lb @ 5000 rpm
Max. Performance <sup>1</sup>	65 hp @ 5500 rpm
Fuel Mixture <sup>4</sup>	Gasoline/Oil 1:80-100
Weight <sup>3</sup>	68.4 lb / 31 kg



### HIRTH 35 Series / 3503, H35 | 70/58 HP 2-Cylinder Gasoline Engine

- Highest power-to-weight ratio
- Perfect for light aviation, hovercraft, gyro or helicopters

Type (InLine)	2-Cylinder/2-Stroke
Displacement	38.1 in <sup>3</sup> / 625 cm <sup>3</sup>
Stroke	2.27 in / 69 mm
Bore	2.99 in / 76 mm
Max. Torque	57 ft-lb @ 6000 rpm -3503
Max. Torque	58 ft-lb @ 5000 rpm -H35
Max. Performance <sup>1</sup>	70 hp @ 6500 rpm -3503
Max. Performance <sup>1</sup>	58 hp @ 5200 rpm -H35
Fuel Mixture <sup>4</sup>	Gasoline/Oil 1:80-100
Weight <sup>3</sup>	79 lb / 36 kg

<sup>1</sup>According to DIN 70020. | <sup>2</sup>Two-stroke oil API TC or BLUEMAX, MOGAS o. AVGAS fuel min. 95 octane (RON). | <sup>3</sup>Weight with exhaust system, sensors, and wiring harness. | <sup>4</sup>With BLUEMAX 2-stroke oil, fuel min. 95 octane. | <sup>5</sup>Specification with 194 F Coolant.



# UAV PROPULSION



Engines Ltd.

**Rotary Valve 4-Stroke Engines**

Authorized RCV Distributor

RCV Engines are designed specifically as a UAV engine for low emissions, low fuel consumption, and turn-key heavy-fuel operation. With their single-, twin-, and four-cylinder designs, these engines are easy to calibrate and provide consistent performance with RCV Engine's unique combustion system. With no injectors in the combustion chamber to carbon up, no valve clearances to adjust, and shielded spark plugs, RCV engines have the high reliability and low maintenance that many midsize drone applications require. As the key features demonstrate, the RCV engine fits a variety of applications, including fixed-wing, rotary-wing, hybrid, marine and portable power.



### RCV DF35 | 3 HP Single-Cylinder Rotary Valve Multi-Fuel Engine

- 2 kW to 4 kW
- Air Cooled
- JP8, JP5 & Jet A-1 / Gasoline
- Fuel Injection
- 4-Stroke

<b>Type</b>	Single-Cylinder/4-Stroke
<b>Cooling</b>	Air Cooled
<b>Displacement</b>	35 cc
<b>Max Power (JP8)</b>	3.0 hp (2.2 kW) @ 8500 rpm
<b>Max Cont. Revs</b>	10000 rpm
<b>Fuel</b>	Gasoline/Jet Fuel
<b>Fuel Consumption (JP8)</b>	0.54 lb/hp.hr / 330 g/kW.hr
<b>TBO (estimate)</b>	250 hrs (VTOL) 500 hrs (Fixed Wing)
<b>Weight<sup>1</sup></b>	2100 ± 200 grams



### RCV DF35LC | 3 HP Single-Cylinder Rotary Valve Multi-Fuel Engine

- 2 kW to 4 kW
- Liquid Cooled
- JP8, JP5 & Jet A-1 / Gasoline
- Fuel Injection
- 4-Stroke

<b>Type</b>	Single-Cylinder/4-Stroke
<b>Cooling</b>	Liquid Cooled
<b>Displacement</b>	35 cc
<b>Max Power (JP8)</b>	3.0 hp (2.2 kW) @ 8500 rpm
<b>Max Cont. Revs</b>	10000 rpm
<b>Fuel</b>	Gasoline/Jet Fuel
<b>Fuel Consumption (JP8)</b>	0.54 lb/hp.hr / 330 g/kW.hr
<b>TBO (estimate)</b>	250 hrs (VTOL) 500 hrs (Fixed Wing)
<b>Weight<sup>1</sup></b>	2100 ± 200 grams



### RCV DF70 | 5.7 HP 2-Cylinder Rotary Valve Multi-Fuel Engine

- 2 kW to 4 kW
- Air Cooled
- JP8, JP5 & Jet A-1 / Gasoline
- Fuel Injection
- 4-Stroke

<b>Type</b>	2-Cylinder/4-Stroke
<b>Cooling</b>	Air Cooled
<b>Displacement</b>	70cc
<b>Max Power (JP8)</b>	5.7 hp (4.2 kW) @ 8500 rpm
<b>Max Cont. Revs</b>	10000 rpm
<b>Fuel</b>	Gasoline/Jet Fuel
<b>Fuel Consumption (JP8)</b>	0.54 lb/hp.hr / 330 g/kW.hr
<b>TBO (estimate)</b>	250 hrs (VTOL) 500 hrs (Fixed Wing)
<b>Weight<sup>1</sup></b>	3000 ± 200 grams

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### RCV DF70LC | 5.7 HP 2-Cylinder Rotary Valve Multi-Fuel Engine

- 2 kW to 4 kW
- Liquid Cooled
- JP8, JP5 & Jet A-1 / Gasoline
- Fuel Injection
- 4-Stroke

Type	2-Cylinder/4-Stroke
Cooling	Liquid Cooled
Displacement	70 cc
Max Power (JP8)	5.7hp(4.2kW) @ 8500 rpm
Max Cont. Revs	10000 rpm
Fuel	Gasoline/Jet Fuel
Fuel Consumption (JP8)	0.54 lb/hp.hr / 330 g/kW.hr
TBO (estimate)	250 hrs (VTOL) 500 hrs (Fixed Wing)
Weight <sup>1</sup>	3000 ± 200 grams



### RCV DF140LC | 11.5 HP 4-Cylinder Rotary Valve Multi-Fuel Engine

- 8.6 kW
- Liquid Cooled
- JP8, JP5 & Jet A-1 / Gasoline
- Fuel Injection
- 4-Stroke

Type	4-Cylinder/4-Stroke
Cooling	Liquid Cooled
Displacement	140 cc
Max Power (JP8)	11.5hp(8.6kW) @ 8800rpm
Max Cont. Revs	10000 rpm
Fuel	Gasoline/Jet Fuel
Fuel Consumption (JP8)	0.54 lb/hp.hr / 330 g/kW.hr
TBO (estimate)	250 hrs (VTOL) 500 hrs (Fixed Wing)
Weight <sup>1</sup>	6300 ± 200 grams



### RCV EFI Engine Control System | Electronic Injection Management ECU

- Compact ECU
- Fully integrated fuel system
- Gasoline/JP8
- Proven software and user interface

Supply Voltage	12 V DC (28 V available)
Typical Power Draw	20 W Including Ignition
Engine Power Range	1 to 15 kW (Up to 40 kW) <sup>2</sup>
Fuel Injector Drivers	2 (Up to 3)
Ignition Drivers/Type	2 / High Energy Inductive
Servo Drivers	2
Load Mapping	Manifold Pressure or Throttle Potentiometer
Environmental/Altitude	Atmospheric Pressure and Temperature Monitoring
Weight	0.66 lb / 300 g

**Equipment:**

- 2016 DMG Mori VMX 1100 Vertical 3-Axis
- 2015 DMG Mori NHX 4000 RPP Horizontal 4-Axis
- 2013 DMG Mori NHX 4000 Horizontal 4-Axis
- 2012 DMG Mori 1035 Vertical 3-axis
- 2009 DMG Mori 5100 Vertical 3-axis
- MasterCam® CNC Software
- Manual Mill
- Manual Lathe

NWUAV CNC Machine Shop

<sup>1</sup>Weight includes base engine, ECU, fuel system, wiring and standard exhaust. Generator, prop and cowlings not included. | <sup>2</sup>With integrated fuel pump.



# UAV PRODUCTS



## PROPULSION SYSTEMS

AS9100 REV D | ISO9001



### RESEARCHED. TESTED. PROVEN PRODUCTS FOR YOUR UNMANNED SYSTEMS

Get your unmanned aerial systems flying higher, quieter and faster with **NWUAV** proven products and product lines. From generators to quiet UAV mufflers to **Pegasus** servo actuators, **uAvionix** sense and avoid, and **Veronte** autopilots, each and every one of the products we offer is researched, tested and proven to improve your unmanned systems. Find the improvement you're looking for or chat with our team to find the best fit.

#### NWUAV Battery Backup Module (BBM) | Power Management System

- All-in-one unique combination of automatic Bus transfer and battery charger
- Selectively switches between shes power, shore power, and batter power
- Automatically manages balanced recharging of the LiPo battery pack
- EMI shielded / EMC compatible
- Designed to meet IPC 67
- Scalable for other battery sizes

<b>Input Range</b>	Ship/Shore Power 25-30 V
<b>Normal Output</b>	25-30 V
<b>Output Power</b>	<b>Ship/Shore Battery</b>
	<b>Battery Transition</b>
<b>Switching</b>	<b>Continuous Power</b>
	<b>Normal Output Voltage Resumed</b>
<b>6 Ah Dimensions (LxWxH)</b>	7.97 x 5.16 x 3.81 in 202.5 x 131 x 96.7 mm
<b>6 Ah Module Weight</b>	1.7 kg



#### NWUAV Engine Control Unit (ECU) | SW1.0

- Purpose-built ECU for UAV systems
- Ruggedized to operate in extreme environments
- EMI shielded and fully programmable ignition curve/Alpha-N
- Throttle transition compensation
- Adaptable to most UAV engine systems
- Manufactured in the USA

<b>Compatibility</b>	10 to 30 V
<b>Communication</b>	CAN Bus protocol
<b>Data Recording</b>	Up to 500 hours
<b>Connector</b>	MIL-SPEC 51 Micro-D
<b>Control</b>	Closed Loop with Adaptive Learning
<b>Dimensions (LxWxH)</b>	4.6 x 3.3 x 0.975 in 117 x 110 x 248 mm
<b>Weight</b>	175 grams



#### NWUAV Fuel Delivery System (FDS)

- Small footprint
- Delivers clean high pressure fuel for EFI solutions
- Fuel filtration with servicable filter
- Bingo level and pressure sensing functions
- Customizable to fit your application
- Manufactured in the USA

<b>Dimensions (LxWxH)</b>	6.7 x 4.04 x 2.65 in 170.21 x 102.64 x 67.39 mm
<b>Fuel Pressure</b>	Up to 60 psi
<b>Priming</b>	Self-priming with Acroatic Fuel Pickup
<b>Empty Weight</b>	410.5 g (dry/no tubing)
<b>Total Weight w/Fuel</b>	726.5 g (fuel wt. 316 g)



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<sup>1</sup>Cooling air may be required based upon integrations and application.



## NWUAV Generator | Frameless/Brushless

- Designed to easily fit into your application
- Highly efficient with high-grade magnets and materials
- Compact design
- 90% Efficient

<b>Power Output</b>	310-Watts
<b>High-Grade Permanent Magnets</b>	150 V @ 3000 rpm 400 V @ 8000 rpm
<b>Max Operating Temp</b>	250°F/121.111°C
<b>Rotor Dimensions (THICKxODxID)</b>	0.78 x 2.44 x 1.9 in 20 x 62 x 48 mm
<b>Rotor Weight</b>	144 grams
<b>Strator Dimensions (THICKxODxID)</b>	1.4 x 3.05 x 2.46 in 35 x 77 x 62 mm
<b>Strator Weight</b>	314 grams



## NWUAV Generator Control Unit (GCU) | 280-Watt

- For permanent magnet alternators
- Small footprint for it's power
- EMI shielded / EMC compatible
- Designed to meet IPC 67
- Shock and vibration resistant
- MIL grade connectors

<b>Combined Power<sup>1</sup></b>	280-Watts
<b>Max Amperage</b>	21 or 28 V @ 10 amp / 12 V @ 10 amp / 6 V @ 3 amp
<b>Voltage Droop</b>	1V no-load to full-load
<b>Communication</b>	CAN Bus / ISO 11898-1
<b>Voltage</b>	3-Phase Input 150 V-400 V
<b>Operating Temp</b>	-40°F-122°F/-40°C-55°C
<b>Dimensions (LxWxH)</b>	4.23 x 2.92 x 1.5 in 107 x 74 x 38 mm
<b>Weight</b>	240 grams



## NWUAV Generator Control Unit (GCU) | 600-Watt

- For permanent magnet alternators
- Small footprint for it's power
- EMI shielded / EMC compatible
- Designed to meet IPC 67
- Shock and vibration resistant
- MIL grade connectors
- Firmware is field upgradable

<b>Combined Power<sup>1</sup></b>	600-Watts
<b>Max Amperage</b>	49 V @ 10 amp Standard
<b>Voltage Droop</b>	5% no-load to full-load
<b>Communication</b>	CAN Bus / ISO 11898-1
<b>Voltage</b>	3-Phase Input 120 V-400 V
<b>Onboard SD Card</b>	10 kHz Recording Rate
<b>Operating Temp</b>	-40°F-122°F/-40°C-55°C
<b>Dimensions (LxWxH)</b>	4.94 x 5.31 x 2.0 in 125 x 135 x 51 mm
<b>Weight</b>	830 grams (board 276 g)

<sup>1</sup>Cooling air may be required based upon integration and application.



## NWUAV RFQ UAV Mufflers | Patented Noise Suppression

- Patented design produces lower acoustic signature
- Unique internal design and packing material
- Helps achieve optimal engine performance
- Lower fuel consumption
- Lightweight conformal design

<b>Sizes</b>	Single & Multiple Cylinder
<b>Engineering Details</b>	NWUAV takes into account the aircraft envelope size and airflow available for the optimal design.



## NWUAV Portable Engine Test Cells | Custom and Mobile Testing Solutions

- Custom Engine Test Cell (CETC) fully contained system
- CETC can be housed inside or outside
- CETC with options include side hatches for larger aircraft
- Custom built for your application
- Mobile Engine Test Cell is available
- NWUAV operators available
- For purchase or lease

<b>Measurement Capabilities</b>	
Torque	Fuel Flow
Ambient Pressure	Ambient Temperature
Relative Humidity	Exhaust Gas Temperature
Cylinder Head Temp.	Engine Speed (rpm)
Horsepower	
Brake Specific Fuel Consumption (BSFC)	
Custom Options Available	



# UAV PRODUCTS



Exclusive Authorized United States Distributor for UAV Servo Actuators

## FOR POWER, PRECISION AND RELIABILITY

Where exceptional precision and reliability are imperative, a Pegasus Servo Actuator could be the game-changer you've been searching for whether your maximum takeoff weight (MTOW) is as little as 30 lbs or as great as 1000 lbs. Our actuators are ready to perform using our COTS or customized solutions. No matter what platform you're flying — unmanned air vehicle (UAV), a remotely piloted vehicle (RPV), or an optionally piloted vehicle (OPV), there's a Pegasus Servo Actuator you can rely on for power and precision built just for you.



German Certification Institute TÜV SÜD Certified according to ISO 9001:2015



### Pegasus Industrial Servo Actuators

- Dependable oil bath lubrication improves gear train service lifetime
- Enhanced vibration tolerance
- Actuators are shielded to minimize EMI/RFI susceptibility and magnetic interference
- Incorporated aerospace specified connectors
- IPC-A-600 Class 3 compliant internal pc-board design and manufacturing

<b>Continuous Torque</b>	30 Ncm to 2000 Ncm
<b>Max Torque</b>	>60 Ncm to >3500 Ncm
<b>Operation Voltage</b>	6/12, 12 or 24 V DC
<b>Travel Angle</b>	±90° (Standard PA-ME/ Contactless Angle Sensor), Alternative Angles On Request
<b>PC-Board</b>	Digital (Programmable) with differential and analog sensor feedback
<b>Weight</b>	65 to 1500 grams



### Pegasus Redundant Servo Actuators

- Control surfaces requiring servo actuation
- Hi-value target drones – surface control and speed brakes
- Swash plate or flap control
- Utility actuation – throttle control, doors, and spoilers
- HALE with an integrated (redundant) heating system option is available
- PA-ME<sup>3</sup> magnetic deflection angle sensor

<b>Continuous Torque<sup>1</sup></b>	300 Ncm to 2000 Ncm
<b>Max Torque</b>	>500 Ncm to >3500 Ncm
<b>Operation Voltage</b>	24 V DC
<b>Travel Angle</b>	315° (PA-ME <sup>3</sup> /Redundant Contactless Angle Sensor)
<b>PC-Board</b>	Dual Servo Controller with Digital Position Feedback
<b>Weight</b>	480 to 2300 grams



### Pegasus Optionally Piloted Vehicles (OPV) Servo Actuator Systems

- Electromechanical OPV Servos with rotary output and magnetic clutch – for safety critical (un)manned systems
- The actuator output shaft moves freely with the electromagnetic clutch disengaged allowing the pilot to control the vehicle
- The clutch can also engage or disengage in any position
- Included in the system:
  - Unique PC-board arrangement
  - Two magnetic clutches

<sup>1</sup>According to Pegasus Actuators GmbH Specification Test (results by request). |

For more information please call or visit [www.nwuav.com](http://www.nwuav.com) to download the data sheet for additional details. Engine application is dependent on airframe factors including: Aerodynamics, propeller, and operational concept. Please contact NWUAV for guidance.



**YOUR ONE-STOP-SHOP | PROPULSION & PAYLOAD INTEGRATION SPECIALISTS**



Authorized United States Distributor  
for the UAV Product Line

## FOR COST-EFFECTIVE UAV SAFETY COMPONENTS

uAvionix Transceivers, Transponders and Navigation Position Sources. Offering a dramatic reduction in size and cost, uAvionix has designed transceivers, transponders and navigation to get your unmanned systems flying safer. If you're in the market for the smallest, lightest and lowest power ADS-B and air traffic integration solutions, find out more below about the variety of products uAvionix offers.

**LEVITATE. COMMUNICATE. SEPARATE. NAVIGATE.**



### LEVITATE | George G2/G3 the Most Reliable Enterprise Autopilot

- Basic Configuration: George G2 Autopilot, truFYX GPS. Integrated 2X2 MIMO BVLOS C2 Radio and Dual Band ADS-B Receiver
- Enterprise Configuration: George G3 Autopilot, truFYX-ext GPS, ping200X DAA, microLink Enterprise C2, pingRX Pro ADS-B IN. External C2 and ADS-B Options
- George G2i + skyStation2 Integration Kit. Includes everything early adopters and platform developers need to integrate into an existing platform and start flying out of the box

<b>George G2</b>	
For Group 2 UAS	21-85 lbs
Servo/ESC Outputs	9
RS-232 Seril IO	2
<b>George G3</b>	
For Group 3 UAS	< 1,350 lbs
Servo/ESC Outputs	12
RS-232 Seril IO	2.5



### COMMUNICATE | skyLine a Cloud Managed BVLOS C2 Network

- Command and Control (C2) solutions for point-to-point or networked UAS operations for BVLOS
- Type-certified aviation-grade avionics and ground infrastructure
- All-weather network-ready Ground Radio System (GRS)
- Aviation-protected CNPC licensed C-Band radios
- Plug and play with all uAvionix certified solutions

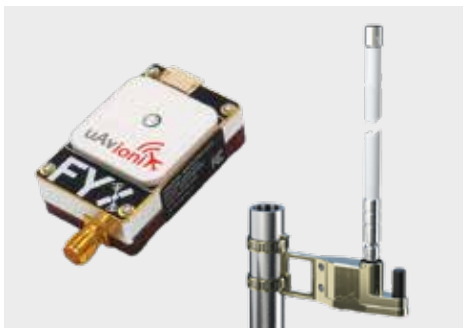
skyLink ARS Radio	Input Power	4-6 V / 1.7 W Peak
	Size	31 x 26 x 9 mm
	Weight	16 grams
skyLink GRS Radio	Input Power	24 V DC
	Size	42 x 264 x 746 mm
	Weight	225 grams
GPS skyStation2	Input Power	POE / 13 W Peak
	Size	122 x 82 x 55 mm
	Weight	500 grams



### SEPARATE | ADS-B Transponders

- ping200X FAA TSO certified transponder for UAS
- ping200XR Integrated with aviation-grade GPS
- ping200Sr fully functional 250-W Level 2els Class 1 Mode S Extended Squiter (ES)
- ping20Si world's smallest, lightest transponder (not approved for use in the US)
- RT2087/ZPX-A AIMS-certified micro "remote"

ping200X	Size	47 x 54 x 9 mm
	Weight	50 grams
ping200XR	Size	47 x 72 x 10 mm
	Weight	52 grams
ping200Sr	Size	91 x 57 x 17 mm
	Weight	76 grams
ping20Si	Size	50 x 25 x 17 mm
	Weight	20 grams
RT2087	Size	44.99 x 9.5 x 59.15 mm
	Weight	45 grams



### SEPARATE | ADS-B Transceivers

- ping2020i (US) and ping1090i (UK+) are the smallest, lightest, and most affordable ADS-B UAT transceivers
- pingRX Pro the only dual-band UAS ADS-B capable of receiving on both 978MHZ & 90MHz
- pingUSB the smallest, lightest, and most affordable dual-band ADS-B traffic receiver
- pingStation 3 is a dual-band, networkable ADS-B receiver with a POE interface; provides ground, surface or low-altitude surveillance

ping2020i	Size	25 x 40 x 16 mm
	Weight	26 grams
ping1090i	Size	25 x 40 x 16 mm
	Weight	52 grams
pingRX Pro	Size	32 x 31 x 9 mm
	Weight	8 grams
pingUSB	Size	75 x 121 x 8 mm
	Weight	14 grams
pingStation 3	Size	7 x 1.4 x 26.5 in
	Weight	545 grams

uAvionix continued next page



# UAV PRODUCTS



## NAVIGATE | truFYX GPS for Unmanned Aviation Systems

- The world's first TSO certified SBAS GPS specifically for UAS autopilots
- TSO-C145e Class Beta-1 SBAS GPS
- Meeting worldwide compliance requirements for controlled airspace access pre- and post-2020 ADS-B mandates in the US and EU
- GPS receiver and antenna in a waterproof enclosure
- Externally mounted GPS receivers

<b>truFYX-TSO</b>	
<b>GPS L1C/A wSBAS</b>	12 GPS/3 SBAS Channels
<b>Size</b>	47.37 x 8.21 mm
<b>Weight</b>	20 grams
<b>truFYX EXT-EXP</b>	
<b>GPS L1C/A wSBAS</b>	12 GPS/3 SBAS Channels
<b>Size</b>	55.85 x 46.85 x 8.21 mm
<b>Weight</b>	38 grams



Authorized United States Distributor

## ADAPTABLE — RELIABLE — AUTONOMOUS

Veronte Autopilots, Control Stations, Software, Payload and Accessories with fully autonomous control for almost any unmanned vehicle, including hybrid VTOL, multirotor and fixed-wing, it's clear why Veronte autopilots are the flight controller's choice for advanced and professional UAV and unmanned vehicle control. From full autopilot kits to individual accessories, Veronte has the autopilot for your unmanned system covered!

**For questions on Veronte product prices, capabilities, custom integration, training and support contact David Jackson, [David.Jackson@nwuav.com](mailto:David.Jackson@nwuav.com) or call 503.434-6845 x 185.**



## Veronte Autopilot 1x | Control System for Autonomous Vehicles

- Advance Control
- All-in-one Box
- Internal LOS & BLOVS
- External LOS, Satcom, 4G/5G
- Certification: DO178-C, DO254, DAL-B, DO160-G

<b>Internal Sensors</b>	3x IMU, 2x Magneto, 2x Barometer, 1x Pilot
<b>Positioning</b>	2x GNSS, RTK, GNSS Heading
<b>Expandable</b>	Veronte CEX, Up to 32 Actuators
<b>Failsafe</b>	Dissimilar Supervisor, FTS
<b>Power Input</b>	3W, 6.5-36VDC
<b>Weight</b>	198 g   210 g Incl. ADS-B/ Remote ID



## Veronte Autopilot 4x | Redundant Flight Control System

- High Reliability
- Redundancy
- Customizable
- Robust, Anodized Aluminum, IP167
- Certification: DO178-C, DO254, DAL-B, DO160-G

<b>Internal Sensors</b>	9x IMU, 9x Magneto, 6x Barometer, 3x Pilot
<b>Positioning</b>	6x GNSS, RTK, GNSS Heading
<b>Expandable</b>	Veronte CEX, Up to 32 Actuators
<b>Failsafe</b>	Dissimilar Supervisor, FTS
<b>Power Input</b>	17-47W, 6.5-36VDC Redundant
<b>Weight</b>	750 g



For more information please call or visit [www.nwuav.com](http://www.nwuav.com) to download the data sheet for additional details. Engine application is dependent on airframe factors including: Aerodynamics, propeller, and operational concept. Please contact NWUAV for guidance.

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### Veronte CEX Avionics | I/O Expansion & Bus Management Unit

- Extend the I/O Ports in Veronte Autopilot
- Network Optimization
- Bus Protection
- User-friendly Design
- DO178-C, DO254, DO160-G Compliant

<b>Power Input</b>	6-36VDC, Redundant
<b>Buses</b>	2x CAN Bus, 2x RS232, 1x RS485, 1x 12C
<b>Connector</b>	68 PIN, Threaded, Robust to Vibrations
<b>Temperature Range</b>	-40°C to 60°C
<b>Power</b>	3.5W
<b>Weight</b>	115 g



### Veronte MEX Avionics | Magnetometer & I/O Expansion Module

- 3-Axis Magnetometer
- CAN Bus Management
- Increases Number of Devices in the System
- Bus Protection
- Software Configurable

<b>Power Input</b>	6-36VDC, Redundant
<b>Buses</b>	2x CAN Bus, 2x RS232, 1x RS485, 1x 12C
<b>Connector</b>	34 PIN, Latch, Robust to Vibrations
<b>Temperature Range</b>	-40°C to 60°C
<b>Power</b>	3W
<b>Weight</b>	100 g   50 g OEM



### Veronte SDL Avionics | RS232 LOS Datalink for Drones

- Radio Module for RS232 Devices
- High Performance and Reliability
- Bidirectional RS232 Communication
- IP67 Protection

- Available in Three Variants:
  - SDL04 400 MHz
  - SDL09 900 MHz
  - SDL24 2.4 GHz



### Veronte LCS Control Station | Rugged Control Station

- Embedded Control Station for UAVs and Drones
- GCS for the Control of Autonomous
- Vehicles Operating in Harsh Environments
- Ready-to-use Veronte Toolbox
- Fully Rugged All-weather MIL-STD-810H & IP66 Design with Magnesium Alloy

<b>OS</b>	Windows 11 Pro, Linux (optional)
<b>CPU</b>	Intel Core i7-1185G7 vPro Processor
<b>Memory</b>	16GB Ram, SSD 512GB
<b>Display</b>	14", FHD 1920-1080, Capacitive Gloved touch
<b>Battery</b>	Li-Ion (18 hours), 3h to Charge
<b>AC Adapter</b>	AC 100V-240V Worldwide Power



### Veronte PCS Control Station | RTK & COMMS for Autonomous Vehicles

- For Any Autonomous Vehicle
- Rugged Control Station for Advanced Control, Waterproof IP54
- Embedded Datalink
- Battery Backup
- Enables RTK, Differential GNSS, Relative Missions, Landing on Moving Platforms and Tracking Antenna Control

<b>Embedded Sensors</b>	RTK, IMU, Barometer, QNH
<b>GCS Computer</b>	Laptop, Tablet, PC
<b>GCS Interface</b>	WiFi, Ethernet, USB
<b>Expansion Bay I/O</b>	RS232, CAN Bus, Ethernet, GPIO, Power
<b>Power Input</b>	14-24VDC
<b>Power</b>	30W (w/o Radio), Up to 80W (w/Radio)



# UAV PRODUCTS



## Veronte Gimbal Drone 10z Series | Full HD EO Camera 10x Optical Zoom

- HD Visible Camera
- IR Camera
- Light and Compact
- Video Processing
- Custom Options Available
- Gimbal 10z SC: HD EO Visible Camera with 10x Optical Zoom
- Gimbal 10z: HD EO Visible Camera with 10x Optical Zoom, FLIR IR Camera (320x256 resolution)

<b>Resolution</b>	HD EO 720p
<b>Frame Rate</b>	30fps
<b>Imaging Sensor</b>	RGB+IR
<b>Zoom</b>	10x Optical
<b>Optical aperture size</b>	F/1.8-3.4 (EO)
<b>Focal length</b>	3.3-33 mm (EO) 13.8 mm (IR)
<b>Dimensions</b>	131 x 120 x 110 mm
<b>Weight</b>	980 grams



## Veronte Gimbal Drone 30z Series | Full HD EO Camera 30x Optical Zoom

- IR and Visible HD Camera
- High Thermal Sensitivity
- Video Processing
- Long Distance Detection
- Custom Options Available
- Gimbal 30z SC: HD EO Visible Camera with 30x Optical Zoom
- Gimbal 30z: HD EO Visible Camera with 30x Optical Zoom, FLIR IR Camera (640x512 resolution)

<b>Optical aperture size</b>	F/1.6 to F/4.7
<b>Focal length</b>	4.3 to 129 mm (EO)   14 (IR)
<b>Dimensions</b>	207 x 148 x 148 mm
<b>Weight</b>	1700 grams



## Autopilot Simulators | Hardware (HIL) & Software (SIL) in the Loop

**Veronte Hardware In the Loop (HIL) Simulator** package is a powerful tool for Veronte Autopilot integration, development and operator training; permitting to extensively operate the system in a safe environment.

- Safe Environment Operation and Testing
- Training and Development
- Real Actuator Movement
- Full Hardware in the Loop Simulation
- Real autopilot hardware and software

The **Veronte Software In The Loop (SIL) Simulator** is contained in a Simulink model that replicates the behavior of the Veronte Autopilot system, permitting to perform advanced UAV and eVTOL simulations without having the physical devices connected.

- Risk Free
- Custom Complexity
- Fast Execution
- Low Computational Load
- Advanced Simulation



## Veronte Tracking Antenna T28 | Auto-tracking, Long-range Communications

- Ready for Operation with Veronte PCS
- Real Time Tracking
- Data, Telemetry and Video Link Communication
- Tripod or Telescopic Mast Mount
- Directional & Omnidirectional Antenna Combination
- Compatible with Veronte MCS or Third Party Computers
- 360° Free Rotation



For more information please call or visit [www.nwuav.com](http://www.nwuav.com) to download the data sheet for additional details. Engine application is dependent on airframe factors including: Aerodynamics, propeller, and operational concept. Please contact NWUAV for guidance.

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## Veronte Motor Controller MC24 | Inverters for eVTOL Certification

Compliant with the DO178C and DO254 certification standards, controls 60-120V motors, sustaining up to 200A continuous current. Redundant inputs ensure reliability, making it perfect for eVTOL and large UAVs in critical operations.



## Veronte Motor Controller MC1100 | Designed for eVTOL and Drones

Motor inverter for eVTOL supporting voltages up to 800V and currents up to 200A for the control of sensed and sensorless electric motors. All this in compliance with aviation standards DO178C and DO254 to ensure high safety and reliability.

### Design, Manufacture, and Testing of:

- Temperature Sensors
- Harnesses
- Simple to Multi-leg Complex
- Timing Sensors
- Ignition Coils
- Fueling Systems
- Air Inlet Assemblies
- Light Assemblies
- Fuel Pumps
- Custom Projects



## NWUAV Production/Electrical & Wiring Harness Shop



# SERVICES



## Propulsion System Services for Unmanned Systems

Manufacturing, testing, engineering ... That's just a few of the propulsion system and drone services we offer at NWUAV. With our team of professionals and well-equipped facility, we're able to assist you with a variety of services. Talk to us today about your project. We'll help you discover the cost effective, reliable solution you've been searching for. To discover more about our specific services, choose the one that fits below.



### AS9100/ISO9001 Aerospace Certification

We meet or exceed our AS9100D/ISO 9001:2015 Quality Management Certification for design, development, manufacture, maintenance, repair, overhaul, and testing of gasoline and heavy-fuel engines.



- Aviation-grade Standards
- DCAA Compliant
- ERP Document Control
- Quality Training Programs
- Internal Audits
- Supply Chain Management



### UAV Engine & Endurance Testing

Reduced flight risk and save substantial time and resources with our advanced testing, analysis, and controlled testing environment.



- Engine Durability & Endurance
- FAR 33
- Engine Break-in Stations
- In-cylinder Pressure & Fuel Mapping
- Acoustical and Computational Fluid Dynamics
- Test & Control your Engine from Anywhere



### Engineering Design & Development

Our team of engineers takes a comprehensive aviation-grade lifecycle approach to engine design and development, well before your unmanned system is in the air.



- Mechanical Engineering
- Electrical Engineering
- Aerospace Engineering
- Heavy-fuel Propulsion
- CONUS & OCONUS Field Service Maintainers
- Hydrogen Power System Design/Development



For more information please call or visit [www.nwuav.com](http://www.nwuav.com) to download the data sheet for additional details. Engine application is dependent on airframe factors including: Aerodynamics, propeller, and operational concept. Please contact NWUAV for guidance.

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## Full Service UAS Manufacturing Facility

NWUAV has the expertise within our AS9100D | ISO9001 certified facility to manufacture and assemble UAV engines and components for your unmanned system.



- COTS & Build-to-print
- A&P Mechanics
- CNC/CMS Machine Shop
- 3D Printing Bureau
- Technical Writers
- ERP Product Lifecycle Management



## Build-To-Print & Contract-To-Build

At NWUAV, we can develop build-to-print propulsion systems using LEAN manufacturing techniques. We can manufacture large volumes of engines designed and built for your application with strict quality control oversight within our AS9100|ISO9001 certification.



- ERP high-volume production management
- Full scale production capabilities
- LEAN manufacturing
- MORE BULLETS UPDATED/NEEDED...



## Electrical & Wire Harness Shop

The NWUAV electrical and wire harness shop has the capabilities to design, build, and test any electrical component for your unmanned system requirements.



- Simple to Multi-leg Complex Harnesses
- Fuel Pumps & Systems
- Timing & Temperature Sensors
- Ignition Coils
- Air Inlet & Lighting Assemblies
- Electrical Component Testing



## MRO (Maintenance Repair Organization)

With our engineering team and testing center, our MRO shop has the expertise and equipment at their disposal to get your engine running like new. Eliminate the extra cost on unnecessary repairs or the purchase of an entirely new engine.



- All levels of engine repairs
- Overhauls
- Custom modifications
- Short turn times
- Cost effective solutions



**Pan Pacific UAS  
Test Range Complex**

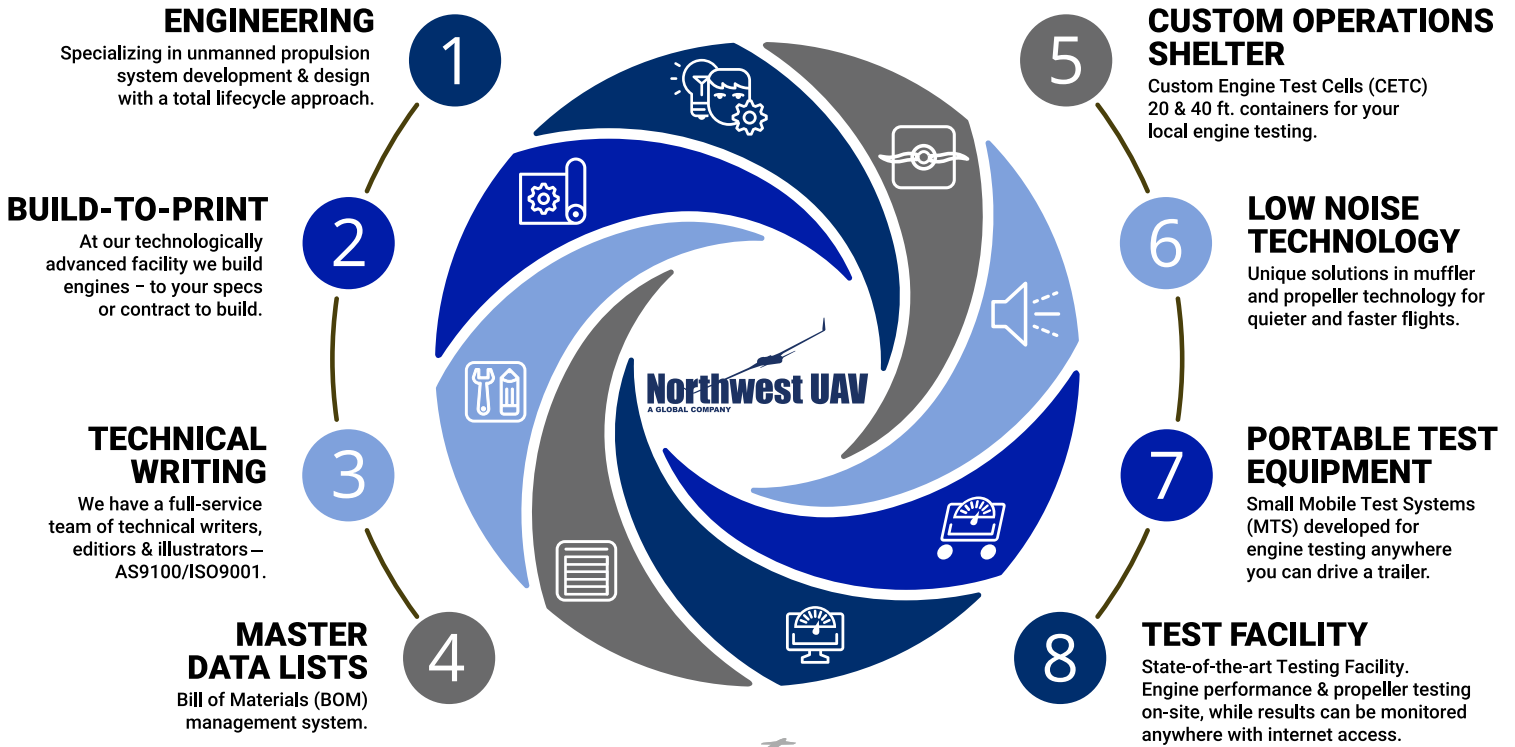
## FAA Approved COA FAST Test Range

Our FAA Certified FAST UAS Test Range is part of the Pan-Pacific UAS Test Range Complex and offers Flight, Analysis, and System Testing (FAST).



- Fly Up To 5,000 Feet
- Fly Within a 5 Nautical Mile Radius
- Part 107 Drone Airmen/Remote Pilots
- Air Traffic Control
- Airfield Operations Management
- Office, WiFi, Power, & Water On-site

# NORTHWEST UAV & THE UAS FAST RANGE YOUR UAV ONE-STOP-SHOP



## FAST FLIGHT, ANALYSIS, & SYSTEM TEST RANGE

A DIVISION OF Northwest UAV



Pan Pacific UAS Test Range Complex

### NORTHWEST UAV PARTNERS



11160 SW Durham Lane, McMinnville, Oregon 97128  
+1 503.434.6845 | fax: 503.217.6080 | Contact@nwuav.com

[www.nwuav.com](http://www.nwuav.com)



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