



## Pegasus TRD (Training and Research Drone)

### Introduction

Unmanned aircraft show great promise for a vast number of military and civilian tasks. The Pegasus Training and Research drone was designed to simulate a small Unmanned Aerial Vehicle in the context of mission rehearsal, avionic and software testing, sensor and data link evaluation. While UAV operations are heavily automated a requirement exists for operators to train their controllers in the art of manual control in the advent of engine or communications failure. Both training and research can take a high toll on UAV damage and can be costly to your UAV project or flight schedule. The Pegasus was specifically designed for the student or beginner controller with survivability and ease of maintenance of high importance in its design.



### Applications in UAV Training and Research

- UAV flight procedural trainer for recovery and emergency procedures
- Test-bed platform for miniature UAS payload products.
- Sensor platform for GPS, DGPS, ADS-B, INS products.
- Data link test-bed for 3G, WLAN, UHF products.
- Concept of operations demonstrator.

### System Description

Fuselage and wings are manufactured from impact optimised energy absorption extruded polypropylene materials. The aircraft's design allows for a range of sensitive electronic test equipment to be fitted with a high chance of saving expensive flight data and research equipment. The aircraft is very stable in high wind conditions and can be flown in conditions of high dust and light rain. The electric power plant affords vibration free operation when testing camera's and protects sensitive electronic equipment.

**Launch Options** – Hand launched or bungee assisted

**Recovery Options** - Net recovery (for tight spots) or any open space (120m x 30m) .



**Technical Specifications**

Power Plant .....	Electric (Li-Po)
Wing Span .....	1400mm (55 inches)
Length .....	1100mm (43 inches)
MTOW .....	3 kg
Payload .....	1 kg
Cruise .....	30 Knots
Max Speed .....	60+ Knots
Endurance .....	60-90 Minutes
Range .....	1km (or range of RC transmitter)

**Options**

- ..... Internal combustion engine
- ..... Telemetry sensor package
- ..... Standard camera package

Each aircraft is manufactured ready to fly with RC transmitter, servos, engine and batteries provided.

Each aircraft can be modified to meet specific customer's payload or research requirement.

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