FRUITY CHUTES*



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Join the ASTM Drone ParaPrep Program



astm-drone-parachutes

MAKING DRONE SAFETY SIMPLE

Since 2007, Fruity Chutes has established a reputable history for dependable performance in unmanned applications employing multicopter drones, fixed wing, VTOL, rocketry, balloon research and other UAV.

TAILORED SOLUTIONS



We work with drone manufacturers, providing technical support for full parachute recovery system (PRS) integration.

We also provide recovery solutions and support for obtaining waivers and certifications pertaining to FAA, EASA, and other CAAs and passing ASTM F3322-18 / -23.

WAIVE THE LIMITS

Fruity Chutes is the first UAV recovery company to have a customer obtain:

- ▲ FAA Type Certification
- Ops Over Human Beings Waiver
- Ops Over Moving Vehicles Waiver





PROTECTING YOUR UAV

Our dependable recovery systems protect your UAV and your company's reputation all while fostering a sense of security and trust between your platform, your customers, and all with whom you do business.

Recovery Solutions

UAV Recovery

Multicopter Solutions **Fixed Wing Solutions** Automatic Trigger System Skycat Rescue Radio Hawk CO2 Release On-Landing Parachute Release







Parachutes

Iris Ultralight Iris Ultra Compact Iris Ultra Standard Classic Ellipticals Droque and Pilot Custom Parachutes

of Experience

designs, and testing our products to meet rigorous standards.

More Recovery Gear

Parachute Bags & Liners Shock Cords & Tethers Attachment Harnesses Recovery Hardware Line and Cable Cutters **Drone Electronics**

Over 4000 customers with widely varying flight applications have made Fruity Chutes their UAV parachute provider, giving our recovery systems an established track record for reliability.

Custom Solutions

We provide one-to-one consultations to create the perfect recovery solution for your application. No matter the task, our parachute systems ensure that you can fly with peace of mind. We're here to help, so don't be shy and reach out with any questions.



All Fruity Chutes UAV parachute recovery systems are designed to meet and exceed high standards which cover a breadth of requirements for drone manufacturers and professional fliers.

Designed for All UAVs

Designed for all types of multicopters, fixed wing, VTOL, and other aerospace recovery applications

ASTM and Third Party Testing

Designed for ASTM F3322-18 and F3322-23

Systems can be quickly reset onsite for repeated flights

High Performance

All systems reduce impact energy by ~98%

Ready for FAA, EASA, and Other CAAs

All systems meet all parachute requirements for obtaining CAA certifications and waivers with regulations based upon ASTM F3322-18 / -23

Regulations include (but are not limited to)

- ▲ FAA Type Certification
- ▲ FAA Ops Over Human Beings
- ▲ FAA Ops Over Moving Vehicles
- ▲ EASA M2 MOC (Light-UAS.2512)

High Performance

All systems reduce impact energy by ~98%

Low Altitude Deployment

Successful parachute ejection and safe landing even at low altitudes

User-friendly

All systems can be reset by the user

No need to send it back for repacking

Ballistic Ejection Protects Rotors

Parachute deployed far from UAV's rotors

Both spring and CO2 ejection systems

No pyrotechnics

Automatic & Manual Deployment

All systems pair with the SATS-MINI for UAV failure detection

Automatic deployment via SATS-MINI

Manual deployment via your autopilot controller or external radio

Black box flight recording, rotor termination and more

Full Integration

Comes with everything needed to recover your UAV

Install on any airframe at any orientation

Dozens of recovery system designs

Over 100 parachute models

Custom system sizing and integration

Peregrine PARACHUTE SYSTEM

for systems 6.3 kg to 227 kg

Rapid Reset

Replace parachute canister in seconds with a simple twist and keep flying

Ideal for ASTM and third party testing

12 Models + Custom Sizing

Ease of Use

Comes with everything needed to recover your UAV

Lightweight

Complete system weighs as low as 1 kg

Spec	Smallest PUAVL	Largest PUAVL
Compatibility	Multicopters, fixed wing, VTOL, other UAV	
System	PUAVL 4 Ultralight	PUAVL 8 Light
Descent Rate	≤ 4.6 m/s	≤ 4.6 m/s
System Weight	1 kg	5.5 kg
UAV Weight Range	6.3 - 19 kg	159 - 227 kg
Parachute Diameter	244 cm	610 cm
Min. Drop Height	36 m	90 m





for systems 0.6 kg to 12.4 kg

User-friendly

Ejection spring resets with just a push

Easily repack the parachute onsite for repeated flights

Unmatched Low Weight

Complete system weights range from 80g to 316g

9 Models + Custom Sizing

Dedicated Parachute Model

Iris Ultra Zero parachute designed specifically to keep the Harrier as light and compact as possible

Low Profile + High Performance

Lightweight nylon and carbon fiber keep weight low while a high-energy spring maximizes ejection velocity

Spec	Smallest Harrier	Largest Harrier
Compatibility	Multicopters, fixed wing, VTOL, other UAV	
System	HUAV 40-30	HUAV 56-66
Descent Rate	≤ 4.6 m/s	≤ 4.6 m/s
System Weight	80 g	316 g
UAV Weight Range	0.6 - 1.9 kg	3 - 9.3 kg
Parachute Diameter	76 cm	168 cm
Min. Drop Height	11 m	25 m





for systems 1.25 kg to 30 kg

Consecutive Flights

Can be reset immediately after use to keep flying

User-friendly

No special tools required to reset

9 Models + Custom Sizing

Fast & Reliable

Ejects parachute away from airframe and propellers within milliseconds

Lightweight

Complete system weights range from 272g to 701g

Spec	Smallest Skycat	Largest Skycat
Compatibility	Multicopters, fixed wing, VTOL, other UAV	
System	SKYRB 48-42	SKYRB 85-120
Descent Rate	≤ 4.6 m/s	≤ 4.6 m/s
System Weight	272 g	701 g
UAV Weight Range	1.25 - 5 kg	10 - 30 kg
Parachute Diameter	107 cm	305 cm
Min. Drop Height	16 m	45 m



Fixed Wing

for systems 1 kg to 200 kg

Land Anywhere

Ideal in flight applications with no suitable landing area

Forward Flight Recovery

Optimal passive deployment in forward flight

No ballistics or pyrotechnics

No Moving Parts

Classic deployment thanks to fundamental physics

No complex technical setup

No machinery

10 Models + Custom Sizing

Stow Out of Sight

May be installed behind a hatch that, when opened, will allow airflow in and pull the pilot parachute out from the airframe

Dual Parachute Recovery

- ▲ Airflow first pulls the pilot parachute
- ▲Shock cord is drawn to full extension
- ▲ Deployment bag is pulled from the airframe
- Main parachute is loosed from the deployment bag to fully expand

SATS-MINI

The Sentinel Automatic Trigger System is a highly configurable device that quickly and reliably detects UAV failure and automatically triggers parachute deployment.

ASTM Compliant

Meets all ATS requirements for ASTM F3322-18/-23 drone parachute systems

Compatible with All UAVs

Flight modes for multicopters, fixed wing, and VTOL

Fully customize each mode's parameters or use the presets Switch modes in flight

Flight Termination

Immediately stops the UAV's rotors on trigger

Black Box Flight Recording

Onboard FFPROM and flash memory for detailed flight and event logging

Independent Power

Rechargeable internal LiPo battery provides over 6 hours of continuous operation

Can connect to the UAV's power and will automatically switch to battery upon UAV failure

Install Anywhere

Mount the SATS-MINI on the UAV anywhere and with any orientation

Z-axis can be calibrated at any position thanks to absolute orientation capabilities



Automatic & Manual Deployment

Automatic deployment when failure is detected

Pilot can manually trigger deployment through their autopilot's controller

Can trigger deployment via Skycat Rescue Radio for an external and dedicated radio system

False Trigger Prevention

Discerns normal flight behavior and dangerous rotation, drops, and free fall

Features customizable flight pattern parameters that allow special flight patterns without triggering deployment

Autopilot Integration

Tight integration with the UAV's autopilot

Unparalleled Customizability

Many configurable features that can be assigned to any channel

Four programmable IO channels

Set timers to delay the trigger of any channel

People-Safe + System-Safe

Safe for high energy systems using CO2 or pyro ejection

Allows safe handling on the ground to avoid false triggers

Even when armed, casual handling of the UAV will not trigger the parachute

Mobile App

Bluetooth LE mobile app support for monitoring and configuration

Configurable Channel Features

Parachute Trigger

External Trigger

Safety Override

Flight Mode Selection

System Status

Black Box Flight Recording

TBS Nano Receiver Support

Controlled Parachute Reefing

Custom Programming

And More

Skycat RESCUE

Ease of Use

Reliably ejects the parachute at the push of a button

Comes with a built-in button and optional external button for added reach to your transmitter

Compatible with TBS Crossfire

Ready for use with the TBS Crossfire module

Supports 868 MHz (EU, Russia) /915 MHz (USA, Asia, Australia) Can change frequency using TBS Crossfire

Forward Flight Recovery

Optimal passive deployment in forward flight - no ballistics or pyrotechnics

Flexible

Also available without radio module for DIY users

Ready to Go

No arming or settings Battery included, just power up and you're good to go

Portable

Mounts easily to your RC transmitter's handle or your pocket with included belt clip

Hawk CO2 Release

Compact Deployment Device

Ejects parachute by pressurizing the parachute compartment

Parachute is ejected away from the UAV and propellers

System weight without CO2 is just 284g

Clean and Cool CO2

No pyro consumables

Use worldwide without regulatory issues

No cleanup or burn holes in your parachute

Patent Pending

Protects Payload

Automatically releases on landing to disconnect the parachute and payload

Mitigates post-landing risk of drag damage caused by wind

Reliable

Internal hold timer ensures parachute isn't released early due to opening bounce or other deployment shocks

Entirely mechanical

No Maintenance Required

Pack and stow indefinitely with the parachute

Raven
On-Landing
Parachute Release

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