

soarability

Speedip

Drone-based Smart Water Sampling System



Efficiency Above All

Drone-based BVLOS Water Sampling Solution

Speedip is an intelligent system specially designed for drone-based BVLOS water sampling. It provides large water sampling volume, powerful situational awareness and a variety of user-friendly functions. Speedip aims to help users improve efficiency and reduce cost in sampling point navigation, water sample collection at designated depths, data logging, and work reporting, etc.



2L max. sampling volume

Total weight including 2kg water is only ~2.7kg
Well within the max. payload limit of DJI M300 RTK



Ultra-lightweight design

Effective payload ratio >74%



Mounting & dismounting within 10s

When used with DJI M300RTK



One-touch auto water sampling at the designated depth

Optional semi-automatic & manual modes



Built-in high-resolution mm-wave radar

1mm ultra-high resolution
Accurate water surface distance detection



Built-in 180° night vision camera

Starlight level performance



Mission synchronization in the Cloud

Mission data logging & reviewing



Multi-ends collaboration

DJI Pilot and browser

Highly-efficient Workflow

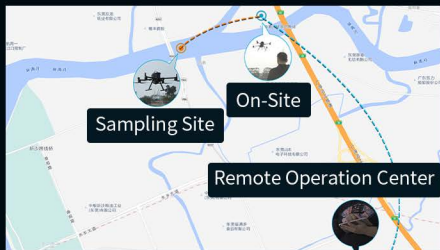
High Sampling Volume

Speedip can be integrated to DJI M300 RTK within 10s. It can automatically send the sampling container to the designated depth with one touch on the screen. When integrated with DJI M300 RTK, Speedip offers a Max. sampling volume of up to 2L with a total weight of only ~2.7kg (including 2kg water), achieving an effective payload ratio of >74%.



No Limitation to Terrain

Speedip supports remote target setting and synchronizing the data to DJI Pilot for guidance. After reaching the designated location, the built-in 180° night vision camera can assist in observing the surrounding environment, and the mm-wave radar can help accurately detect the water surface distance, achieving real BVLOS operation.



Easy Reporting

The sampling process can be synchronized to multi-ends including DJI Pilot and Speedip web platform in real-time. The mission data will be automatically saved, stored and can be reviewed later on the web platform, making data logging and work reporting easy like never before.



Behind the Exceptional Performance of Speedip

Water Sampling Containers

3 types of sampling containers are available for different scenarios.



2L, PMMA
Suitable for most surface sampling



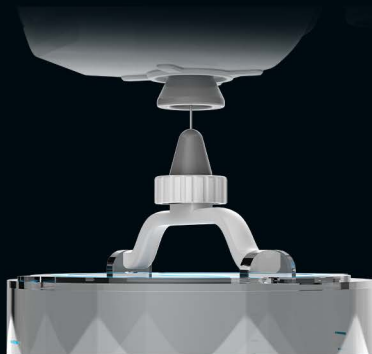
1L, Stainless Steel
Suitable for corrosive liquid



1L, PMMA
Suitable when using with other payload (e.g. H20T)

Semi-coupled Connection

The unique design of the semi-coupled connection significantly decreases the shaking of the container after sampling, and reduces the rotational inertia of the whole system for better flight safety.



Built-in 180° night Vision Camera

The camera built in Speedip has 1/2-inch sensor, 180°D-FOV, F/2.0 aperture and starlight level performance to help the on-site team handle all kinds of BVLOS operations with ease.



Built-in mm-wave Radar

The 1mm ultra-high-resolution mm-wave radar allows accurate water surface distance measurement, reducing the flight risk of BVLOS water sampling missions.



Built-in 4G Connectivity

Speedip supports multiple-to-multiple data transmission with no distance limit. The on-site information can be sent to multi-ends in real-time for more efficient teamwork.



High-brightness LED Warning Lights

The warning lights show the working status at a glance, providing both system information and safe operations for people near the Speedip.



Other User-friendly Features

Remote Target Setting

After the off-site team finishes remote target setting, its coordinates will be automatically synchronized to DJI Pilot, guiding the on-site team to fly to the target and start the mission.



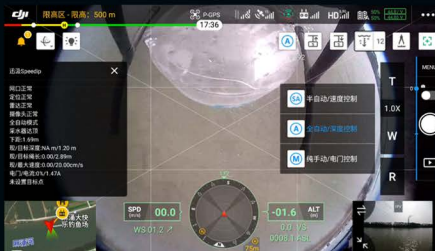
Fully Automated Water Sampling at Designated Depths

The intelligent closed-loop motion controls (distance & speed) enable accurate & smooth one-touch automated water sampling at the designated depth. Semi-auto (speed control) and manual (throttle control) modes are also available.



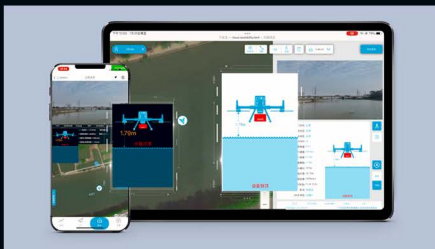
DJI PSDK3.0 Supported

The system can be controlled & monitored directly via DJI Pilot. The real-time camera view and working status can be displayed on DJI Pilot.



Cloud Mission Synchronization

Speedip can be controlled & monitored via a user-friendly Speedip web platform. The real-time sampling process will be synchronously displayed on the browser and the data will be automatically uploaded to Speedip Cloud after mission completion. Users can view the historical missions on the web platform at any time.



**Speedip supports connection through API port and it can be controlled by other devices (e.g. a 5G box or Pixhawk), providing more complete solutions for users in different applications.*



Tip:

*Speedip the Smart Water Sampling System is now available.
Please contact inquiry@soarability.tech for more info!*



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