DRT DRONE

DRT_Q

Product Proposal



Key Features



01	1:1 Encrypted Video Link
02	In-House on Safe Open Source
03	Position Hold Indoors and Out
04	Goggle Display Designed for the Aircraft
05	AR Goggle FPV
06	DRTView Ground Control App
07	Up to 20 min Flight
08	Fully Modular Design

DRT_Q

A palm-sized reconnaissance drone. Release the sticks and it stops in place, even indoors, and only the one paired receiver decodes its video.

From flight control to the goggle display, everything is completed in-house on safe open source.

Product Features

01 1:1 encrypted video link — only the one paired receiver decodes the video

02 On safe open source — everything above the verified open source is our own

03 Position hold indoors and out — release the sticks and it stops, even without GPS

04 A goggle display rendered by the receiver — full sentences, status colors, dialogs

05 AR goggle FPV — see your surroundings and the flight view, glasses on

06 Fully modular design for easy maintenance



AR GOGGLES FPV

AR Goggles

Real-time flight view beyond the glasses

The AR glasses connect to the FPV camera in real time, while the OSD (on-screen display) delivers position, vehicle status, heading, and more.

Unlike conventional FPV goggles, you can check your surroundings at any time without taking the glasses off.



Dual-band	5.8GHz / 2.4GHz support
1080p@90fps	720p@120fps high-definition video
OSD Info	Real-time position, vehicle status and heading

ZERO BACKDOOR

Complete video security on a transparent open-source base

Open source is the foundation. Flight control (PX4) and video transmission (OpenIPC) are verified worldwide, leaving no room for a backdoor, and DRT verifies and builds the full source in-house before adding the technology each mission needs.

Only the one receiver paired with the aircraft decodes the video. There is no server to upload to and no account, so flight logs stay with the pilot.

Full Open-Source Stack	PX4 flight control · OpenIPC/WFB-NG video link, verified at source-code level across every layer
1:1 Encrypted Video Link	libsodium-based ChaCha20-Poly1305 encryption and authentication; dedicated aircraft–receiver key pairing. New keys are generated in the field from the goggle menu
Military & Government Ready	Meets the communication security requirements of defense and public-sector environments



RECEIVER-RENDERED OSD

A goggle display designed around the aircraft

DRT Q's goggle display is an in-house OSD designed around the mission and the way you fly. Each piece of information has its own place, color and motion, so even in fast flight what matters now catches your eye first. That sets it apart from ordinary OSDs that line up characters, and setup is finished inside the goggles.



Read it as a sentence

Arming refusals and warnings appear as full sentences, not number codes.

See it by color first

Battery, link and satellite numbers turn normal, caution or critical.

Finish with the transmitter alone

Channel, power, recording, modes and the key in the goggle menu. MGRS coordinates always on.

MULTI-SENSOR FUSION

Precision Position Control

Multi-sensor fusion system

Fly anywhere with exceptional precision

A downward-looking optical flow sensor is fused with satellite positioning, so the aircraft hovers in place even indoors without GPS.

Release the sticks and the aircraft stops. First-time operators fly on day one.

Optical Flow	TOF sensor (effective altitude range 6 m)
GNSS	GPS + Galileo + BeiDou
Accuracy	2 cm (<2 m) / 1.5% (>2 m) @ 90% reflectivity



DEDICATED APPLICATION

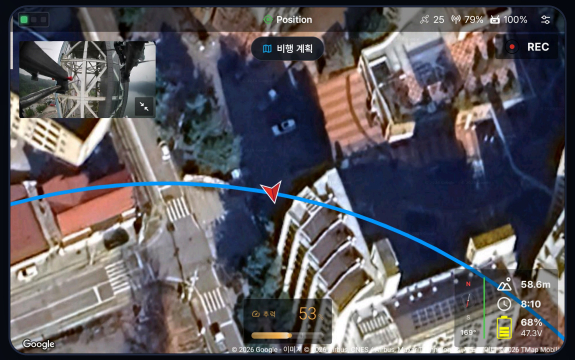
DRTView

Map, flight logs and settings in DRTView

Our own ground control app. See the flight track and map and configure the aircraft.

It works without the internet and supports Korean, English and Japanese. A smartphone is all you need in the field.







Specifications

Model	DRT Q
Weight	298 g (excluding battery)
Dimensions (L×W×H)	210 mm × 215 mm × 100 mm (with propeller guards)
Diagonal Length	170 mm (260 mm with propeller guards)
Max Ascent Speed	7 m/s
Max Flight Speed	Approx. 20 m/s (72 km/h, GPS mode) Approx. 28 m/s (100 km/h, manual mode)
Max Flight Time	20 minutes
Max Flight Distance	2 km
Flight controller	In-house firmware based on PX4
GNSS	GPS + Galileo + BeiDou
Sensing System	Optical flow sensor – TOF (effective altitude range 6 m) / 2 cm (<2 m @ 90% reflectivity) / 1.5% (>2 m @ 90% reflectivity)
Video System	OpenIPC platform – dual-band 5.8 / 2.4 GHz / 1080p @ 90fps, 720p @ 120fps
Video Security	1:1 secure video link with a dedicated encryption key
Battery	15.2 V / 3400 mAh / 4.35 LiHV
Battery Weight	235 g

Thank you

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