



# Color+Thermal

Unrivalled autonomy turns operators into experts.

## Achieve more with AI powered autonomy.

Skydio X2D Color/Thermal is the ultimate UAS solution for aerial reconnaissance and situational awareness. X2D is powered by Skydio Autonomy Enterprise, an AI-driven autonomous flight engine that enables unparalleled 360° obstacle avoidance, autonomous tracking, GPS-denied navigation, and complete workflow automation.

## Tough. Portable. Nocturnal. And thermal.

X2D is designed with a ruggedized, foldable airframe, GPS-based night flight, strobing lights in visible and IR wavelength, and a dual sensor payload with a 12MP color camera and FLIR® 320x256 thermal sensor.

## Military grade performance and security.

Built to exceed the Short-Range Reconnaissance (SRR) requirements for the U.S. Army, Skydio X2D is designed and assembled in the USA, and is compliant with the National Defense Authorization Act (NDAA).

up to  
**6.2 mi / 10 km**  
Wireless range at 1.8 GHz.

up to  
**3.7 mi / 6 km**  
Wireless range at 5 GHz.

up to  
**35 min**  
Flight time.

**AES-256**  
Wireless encryption  
cybersecurity.



### Color/Thermal cameras.

- 4K60P HDR w/16x zoom
- Color lens w/ ~46° HFOV
- FLIR® Boson w/8x zoom



### Quick deploy design.

- Foldable arms for portability
- Pinch-release antenna
- Airborne in under 75 seconds



### Ergonomic X2 Controller.

- 6.8" ultra-bright AMOLED touchscreen
- Large glove-compatible joysticks
- USB-C 3.1 with HDMI-out support

# Technical Specs



## Aircraft

Dimensions (unfolded, flying)	26.1" x 22.4" x 8.3" (66 x 56 x 20 cm)
Dimensions (folded, no battery)	11.9" x 5.5" x 3.6" (30 x 15 x 10 cm)
Weight (with battery)	1325 g
Flight Time	Up to 35 minutes
Max Flight Speed (sea level, no wind)	25 mph (40 km/h)
Max Wind Speed Resistance	23 mph
Max Service Ceiling (above sea level)	Up to 12,000 ft
Operational Temperature Range	-10°C to 43°C



## Controller

Controller Dimensions	10.75" x 5.25" x 3.0"
Weight	1130 g
Applications	Skydio Enterprise App (offline), Skydio QGroundControl
Wired Links	USB, (via dongle) HDMI
Operating Frequencies	1.8 / 5 GHz
Max Range	Up to 10 km (1.8 GHz) Up to 6 km (5 GHz)
Video Feed	720p at 30 fps

## System Security

Wireless Encryption	AES-256
Firmware	Signed and encrypted
Media Encryption	Encrypted SD Cards with physical security key
Controls	Ability to provision and deprovision devices
Infrastructure	Key provisioning burned-in at time of manufacture

\*Wireless range is dependent on frequency and operating environment.

## Skydio Autonomy Enterprise

Main Processor	NVIDIA Tegra X2 SOC
Camera Configuration	6x cameras in trinocular configuration top and bottom
Environment Coverage	True 360°
Obstacle Avoidance Coverage	Omnidirectional
3D World Model Update Rate	> 1 million points per second
World Model-to-Action Update Rate	500 iterations per second
Onboard AI	9 custom deep networks used in flight
User-Selectable Subjects for Tracking	People and motor vehicles
Object Tracking and Identification	Up to 20 simultaneous objects of interest
Calibration	Automated calibration of lens parameters, cameras, wind speed, and air density
Advanced AI-Pilot Assistance	Close Proximity, Obstacle Avoidance, Scout, TAK integration, Point-of-Interest Orbit, Track-in-Place, Vertical View, Visual Return-to-Home

## Primary Camera System

Color Sensor Type	12.3 MP CMOS
Color Lens Focal Length	41mm (35mm format equivalent)
Color Video Resolution	4K / 60 fps with 16x digital zoom
Color Video Format	MPEG-4 (AVC/H.264, HEVC/H.265)
Color Still Resolution	4056x3040 (12 MP)
Color Dynamic Range	13 stops
Pitch Controllable Range	-110° to +45° (-110° to +90° with AEF)
Thermal Sensor Type	FLIR Uncooled VOx microbolometer
Thermal Resolution	320x256
Thermal Lens Focal Length	9.1mm
Thermal Framerate	30fps

Contact [sales@skydio.com](mailto:sales@skydio.com) today to learn more  
about Skydio X2 and Regulatory Services.

Designed and assembled in the USA.

For additional technical specifications, please visit  
<https://www.skydio.com/skydio-x2>