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Skydio's autonomous drone "X10" adopted Nidec motors

US drone manufacturer, Skydio, Inc. (HQ in CA, USA, CEO: Adam Bry, Skydio) released a new autonomous flying drone "Skydio X10" which uses Nidec motors in propulsion motors and gimbal camera angle adjustment motors.



**Autonomous Flying Drone
"Skydio X10"**



Propulsion Motor



**Gimbal camera
adjustment motor**

Skydio X10 is the latest model of autonomous flying drone that can constantly recognize its surroundings with six navigation cameras installed on the aircraft and automatically avoid obstacles in its surroundings. Equipped with the NVIDIA Jetson Orin SoC as the main processor, the Skydio X10 achieves a computing processing performance that is more than 10 times that of previous Skydio drone models. It also has a variety of features such as a gimbal camera, thermal camera, and IP55 dust and water resistance, making it ideal for inspections of infrastructure equipment, etc. It is expected that it will be used for patrol work at construction sites.

Our motors used in the Skydio X10 are propulsion motors and gimbal camera angle adjustment motors, and each has the following features:

Propulsion Motor (4pcs per drone)

- Achieved high efficiency and low weight by adopting a design that maximizes magnetic flux by optimizing high-wire stacking winding technology and the shape of the magnet.
- Designed for harsh environments to ensure robustness.
- Development system and quality control compliant with aerospace industry standards (AS9100).

Gimbal camera angle adjustment motor (one each for pan, tilt and roll, total 3pcs)

- Achieved a 50% reduction in cogging torque compared to gimbal motors in the same output range, contributing to smooth angle adjustment.

Our company will continue to contribute to solving social issues through a variety of products, including motors for drones.

For more details on the above product, please contact:
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