

# Matek Optical Flow Module

The MatekSys optical flow 3901-L0X sensor is a lightweight optical flow sensor including a short range lidar which uses the MSP protocol to communicate with ...

This sensor works the same way as an optical mouse, helping your iNAV quad maintain position without GPS! This module also integrates a laser time-of-flight range sensor.

Make sure Optical Flow lens to ground  $\geq 2$ cm for opflow initialization while FC starting up. Maximum range of VL53L0X is 2m, Altitude hold 0~2m @ throttle 0~100% if VL53L0X is enabled.

The Matek 3901-L0X Optical Flow Lidar Sensor is a compact, lightweight dual-sensor module designed for drones, UAVs, and robotics applications requiring accurate position hold and altitude measurement.

Featuring the PMW3901 optical flow sensor paired with the ST VL53L0X Lidar, this module enhances your drone's capabilities with advanced obstacle detection and accurate flight control.

The MatekSys optical flow 3901-L0X sensor is a lightweight optical flow sensor including a short range lidar which uses the MSP protocol to communicate with the autopilot.

MATEK 3901 L0X Mateksys UAV drone optical flow lidar sensor meter module for FPV RC multirotor airplane fixed-wing drones FC flight controller

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Communication between 3901-L0X module and Flight controller via UART MSP V2 protocol supported by INAV and ArduPilot. There is no detailed datasheet of MSP V2 protocol.

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Web: <https://www.safireschools.co.za>

