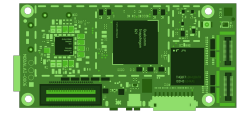


VOXL m500
Fully Built Autonomous Drone



VOXL Autonomy Suite



VOXL
Companion Computer



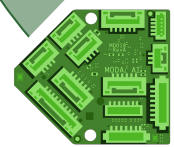
Qualcomm Snapdragon



Hundreds of Camera
Payload Options



Flight Core
PX4 Flight Controller



Autonomous Ground
Robots



PX4 Companion Computer with Flight Controller



Used "out of the box"

Companion Computer

Linux Yocto Jethro, 3.18 Kernel
Docker
OpenCV
ROS
voxl-suite



gitlab.com/voxl-public

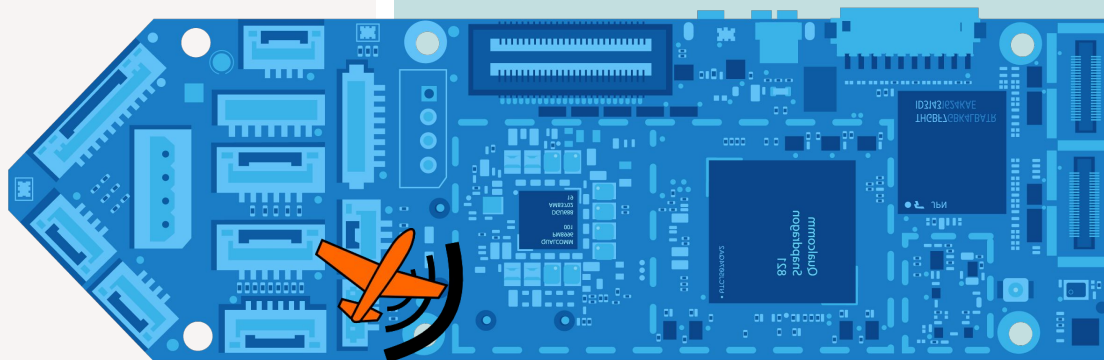
Indoor Navigation
Obstacle Avoidance
Visual Fiducials
MAVLink Routing

MAVSDK
MAVROS

Examples for using:
CPU, sDSP, cDSP, GPU,
Cameras, I/O

ARM Compute Library
TensorFlow
OpenCL, OpenCV

58 projects and counting



MAVLink
← UART →

PX4 Companion Computer with Flight Controller



Flight Controller

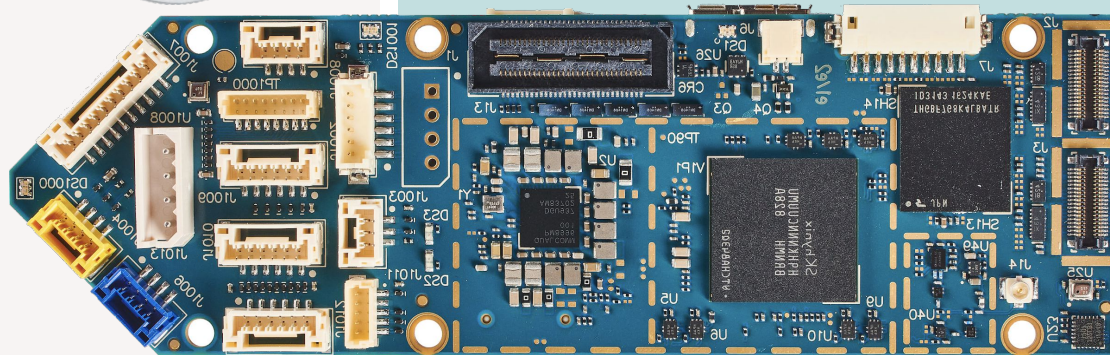
ARM M7 STM32F7
216MHz
250KB Flash
256Kb FRAM

3 IMUs
ICM-42688-P
ICM-20602
BMI-088

BMP388 Barometer

Interfaces

5 UART
2 I2C
GPIO
8 PWM Channels
6 LEDs



Companion Computer

Snapdragon 821 w/ 4GB LPDDR
Quad Core CPU up to 2.15Ghz
Adreno 530 GPU at 624MHz 256 ALUs
Compute DSP (825MHz)
Sensor DSP (700MHz)

24 grams
3-10W

Camera Interfaces
MIPI-CSI2
USB UVC
HDMI

4k30 Video Capture
h.264/5 w/ 720p FPV

4G LTE AddOn Option
Microhard AddOn Option
802.11ac
USB 3.0

32GB (UFS 2.0)

2 IMUs
ICM-42688, 20948

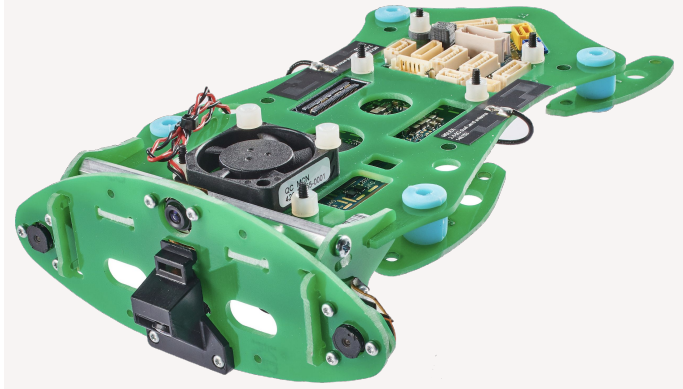
Interfaces
2 UART
3 I2C
GPIO
3 LEDs

Fully Built Development Drones Ready to Fly



VOXL Flight Deck

Mount and Fly Obstacle Avoidance and GPS-Denied Navigation Kit



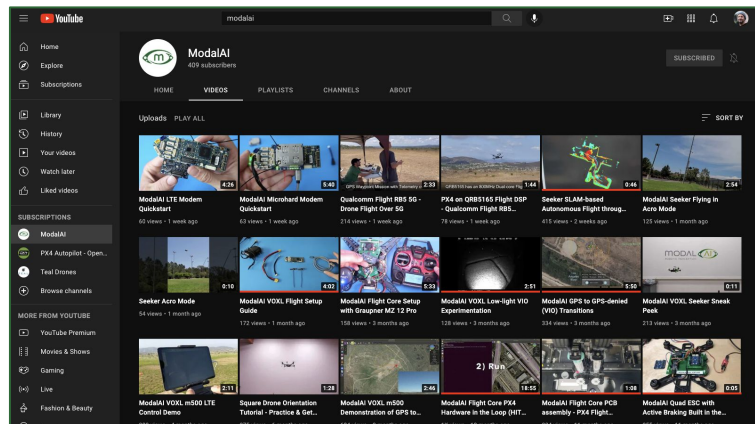
VOXL m500, Seeker, and Qualcomm Flight RB5 5G Platform

Fully Built, Ready to Fly Autonomous PX4 Drones with Obstacle Avoidance and GPS-Denied Navigation



Open Source Platform

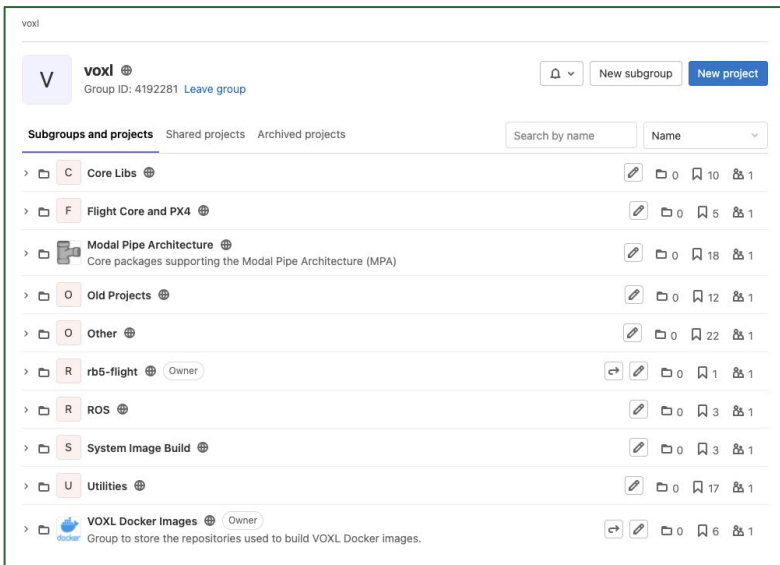
<https://www.youtube.com/c/ModalAI/videos>



<https://forum.modalai.com/>

	Ask your questions right here! Note sure where to post? Ask questions here for direct access to the ModalAI engineering team	227 TOPICS	1.2k POSTS
	FAQs Commonly asked questions we get from the community	12 TOPICS	55 POSTS
	Questions by Product Product related questions and answers	110 TOPICS	633 POSTS
	<ul style="list-style-type: none">VOXL m500 Reference DroneVOXL-CAMVOXL Flight DeckVOXL FlightVOXLFlight CoreMicrohard ModemsLTE ModemsESCsPower ModulesImage SensorsHDMI Input AccessoryQualcomm Flight R85 5G Drone		
	Software Development Questions about developing software on the products	38 TOPICS	180 POSTS
	<ul style="list-style-type: none">GPS-denied Navigation (VIO)Modal Pipe Architecture (MPA)		

<https://gitlab.com/voxl-public>



ModalAI By The Numbers

10+ years

of experience in the robotics and drone industry in the U.S.A.

450+ active users

on ModalAI Developer Network

200+ partners

enabled with VOXL[®]

345 + registered users

on ModalAI forum

Open SDK

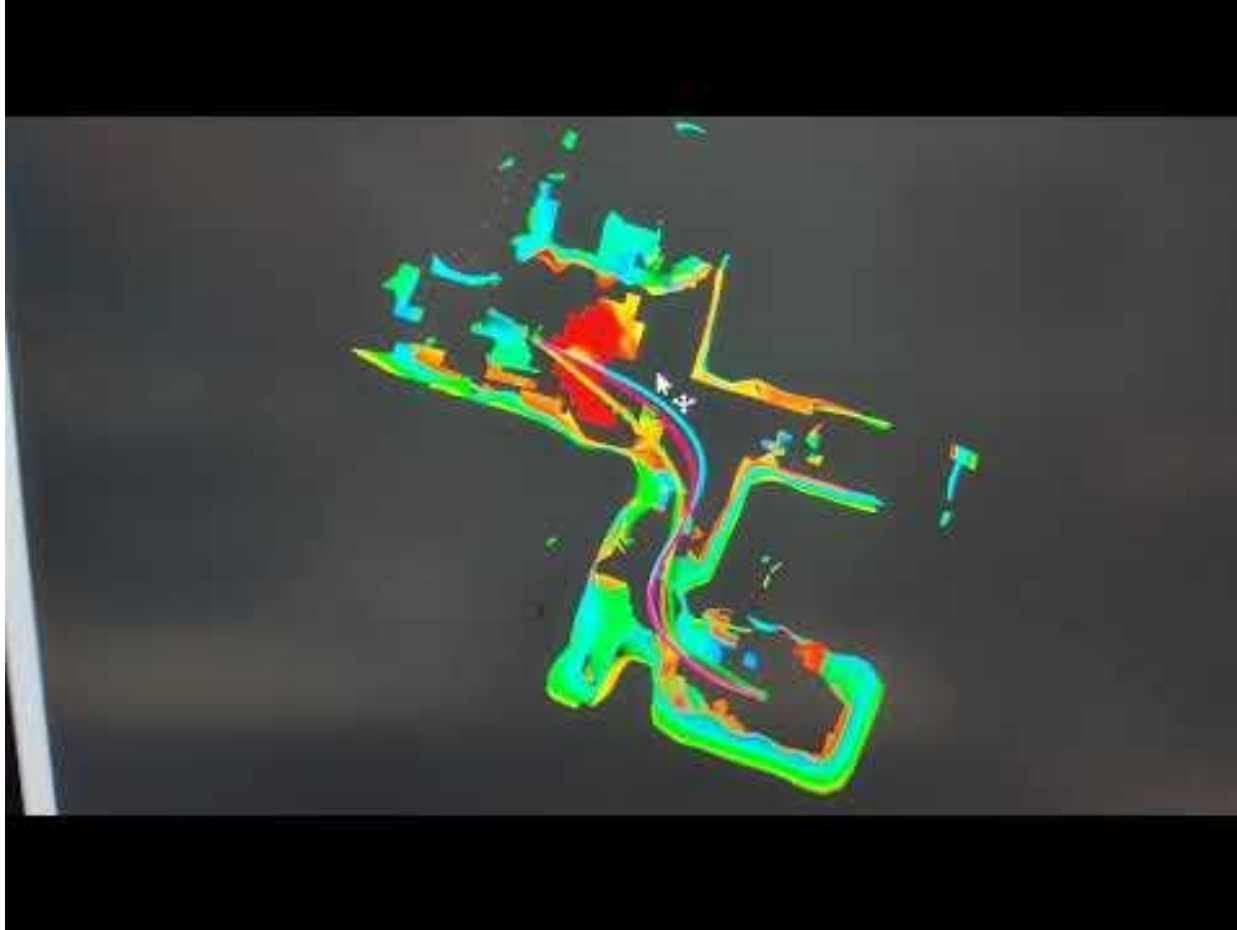
with support for various development tools like ROS, PX4, TensorFlow Lite & Docker



Qualcomm Flight RB5 5G Platform Flying over 5G



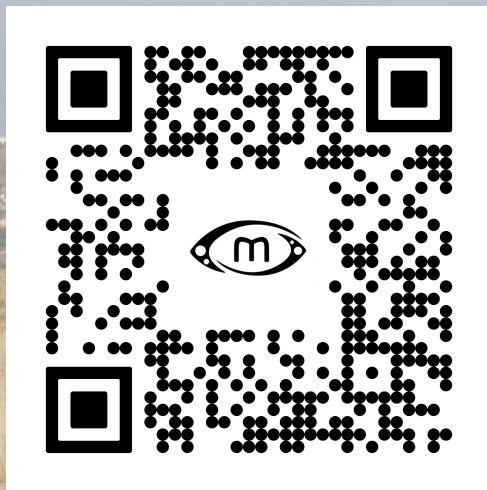
Seeker Indoor Micro Development Drone



Low Light VIO with PX4 - As a cool use case



Thank You + Stay in Touch!



Scan the QR Code or visit modalai.com/dronecode for more information about Dronecode, ModalAI, and this talk.

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