

# Software Discovery Guide:

## Software Functionality Targets to Enable the Community

Revision 2022.11

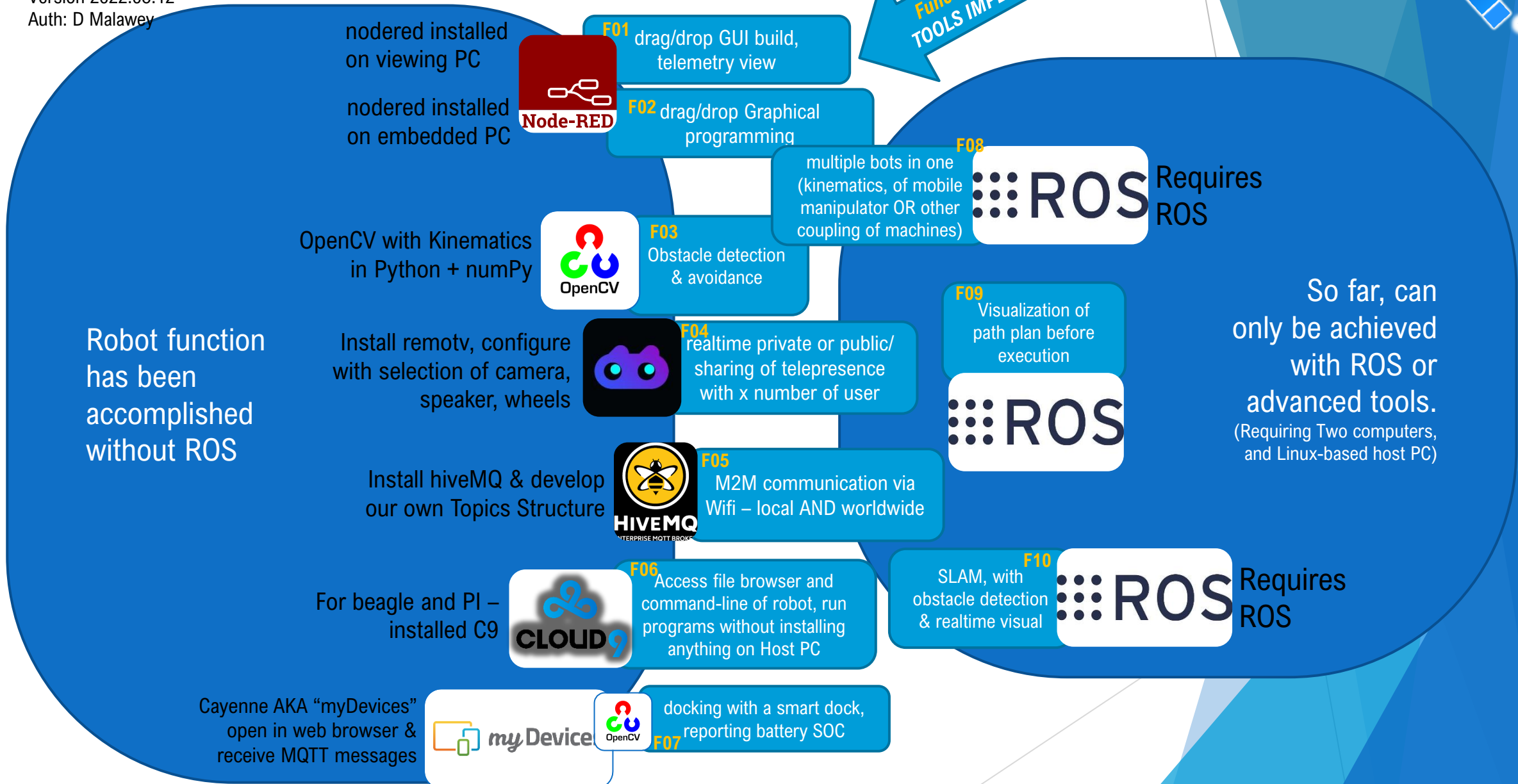
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# Software Functionality

Version 2022.08.12  
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Function Number /  
TOOLS IMPLEMENTED



# Viam Functionalities



- ▶ Content in progress!
- ▶ If you can't wait, visit VIAM's [Software Tutorials](#)
- ▶ The goal:
  - ▶ Use ANY ROBOT
  - ▶ Use ANY Processor
  - ▶ Easy config and program in your own language



# Enabling the Community of Roboticians

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## Robotics Softwares Used by SCUTTLE™ for Functionality

Software	Function	Host PC MINIMUM	Executed already?			SCUTTLE Community TI Edge AI Needs:
			Demo	Pi	Blue	
NodeRed	drag/drop GUI build, telemetry	windows		3	3	0 equivalent on Edge AI
NodeRed	drag/drop graphical programming	windows		3	3	0 equivalent on Edge AI
NodeRed	send/receive MQTT graphical only	windows		3	3	0 equivalent on Edge AI
NodeRed	control from Phone	BROWSER		3	3	0 equivalent on Edge AI
NodeRed	control from Web Browser	BROWSER		3	3	0 equivalent on Edge AI
OpenCV	object detection	none		3	3	0 equivalent on Edge AI
OpenCV	docking by visual	none		3	3	0 equivalent on Edge AI
NumPy	kinematics	none		3	3	0 equivalent on Edge AI
Remo.tv	telepresence	windows		2	1	0 equivalent on Edge AI
HiveMQ	Broker	none		2	1	0 equivalent on Edge AI
Cloud9	Graphical IDE	windows		3	3	0 equivalent on Edge AI
Cayenne	M2M communication with GUI	BROWSER		1	1	0 equivalent on Edge AI
MQTT Raw	M2M communication	none		2	2	0 equivalent on Edge AI
ROS	Collaborating robots in realtime	linux		1	1	1 ability without Linux Host
ROS	Visualization of path-plan	linux		1	1	1 ability without Linux Host
ROS	SLAM	linux		1	1	1 ability without Linux Host
Numpy	Obstacle detection (range-based)	none		3	3	0 equivalent on Edge AI
AWS	MQTT Broker, self-owned	windows		1	1	0 equivalent on Edge AI

LIMITATIONS	
1	none
2	web browser
3	mobile phone
4	windows
5	linux

EXECUTION	
3	standard: written on image
2	trial only: not on image
1	research: 1-off execution