



Intel Euclid



| So Let Me Tell You |

a Story





Once
upon
a
time...



Maker Faire[®]

BAY AREA

**May 19-21
2017**

Maker Faire

12TH ANNUAL BAY AREA

HomeBrew Robotics Club



We are the "HomeBrew Robotics Club"... just a bunch of guys and gals who like to make robots... HBRC members have a wide range of expertise in robotics that includes beginners, experienced amateurs and professionals... suitable for kids of all ages.

RoboStar

Marco Walther

Presents: Enteecker L @ the HBRC

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MAY 19-21, 2017

» makerfaire.com Make:

Home Br
Robotic



NO RECORD

Home Brew Robotics

Maker Faire 2017
Home Brew Robotics Club
We are the Home Brew Robotics Club, and we are a group of guys who built the 30+ robots that you see at the event. We are a group of guys who built the 30+ robots that you see at the event. We are a group of guys who built the 30+ robots that you see at the event.
Home Brew Robotics Club
June 17-18, 2017



Home Brew
Robotics

Home Brew
Robotics

Home Brew
Robotics

ROS

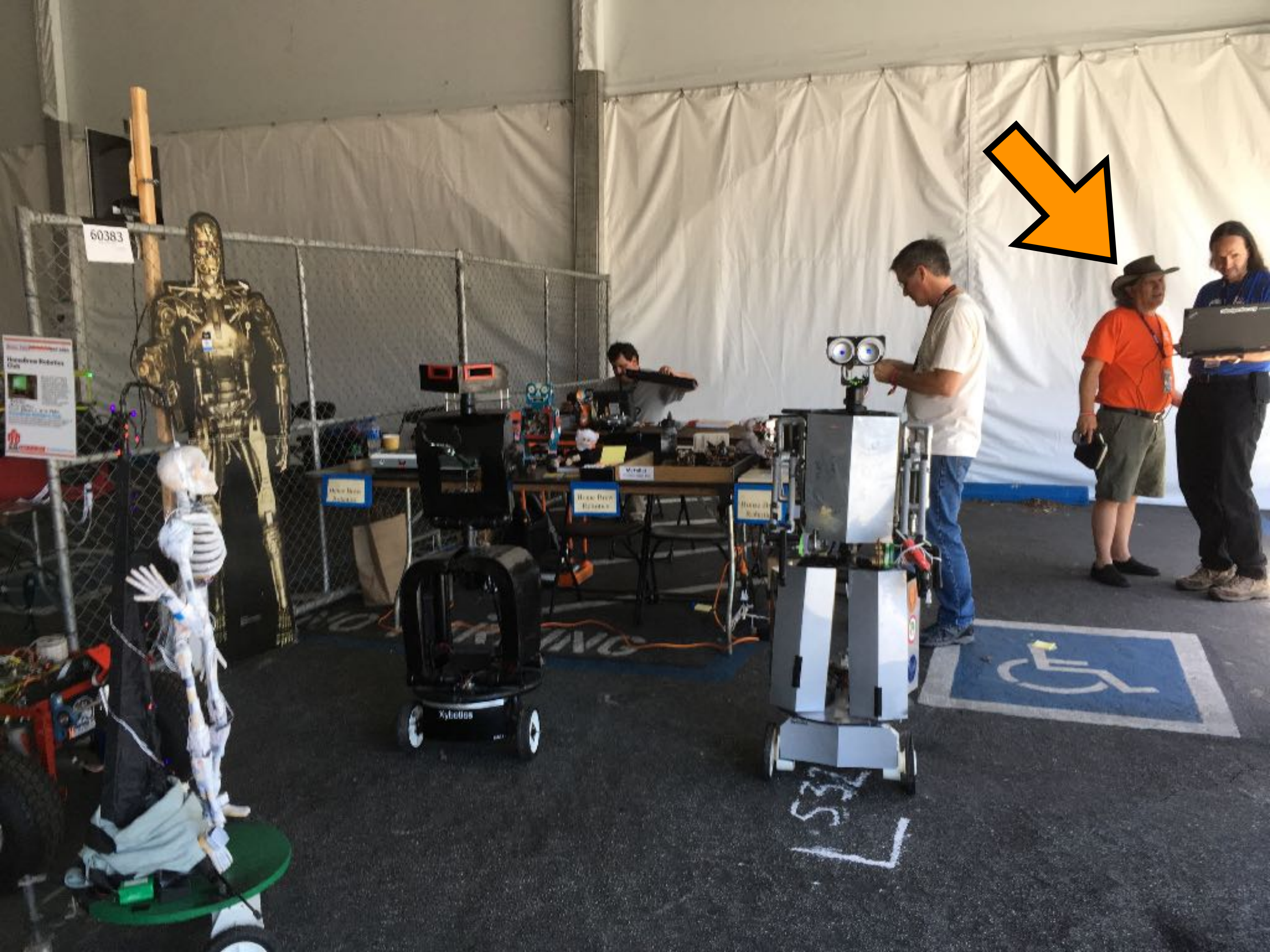


watch how I won
2nd place at



Sample Return
Robot Challenge

Xybotics



60383

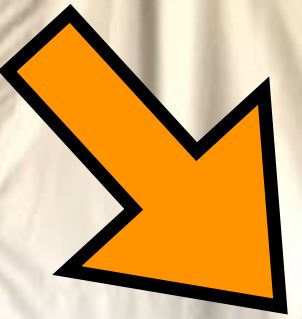
Humanoid Robotics Club

Humanoid Robotics Club

Humanoid Robotics Club

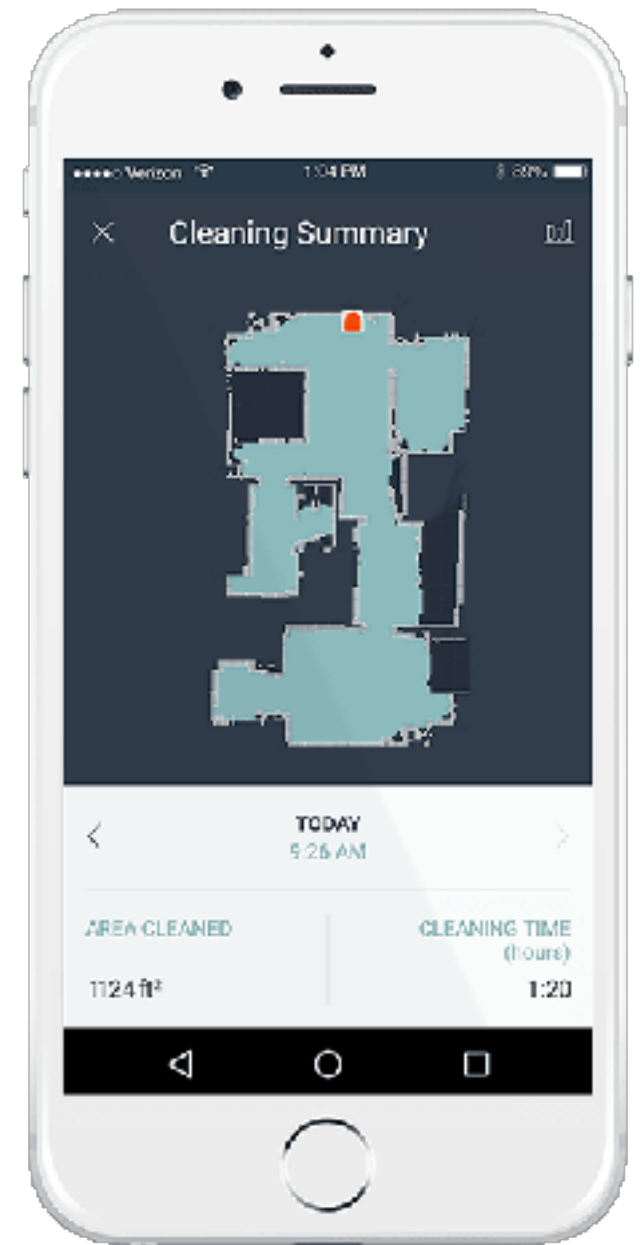
Humanoid Robotics Club

XyloDuo

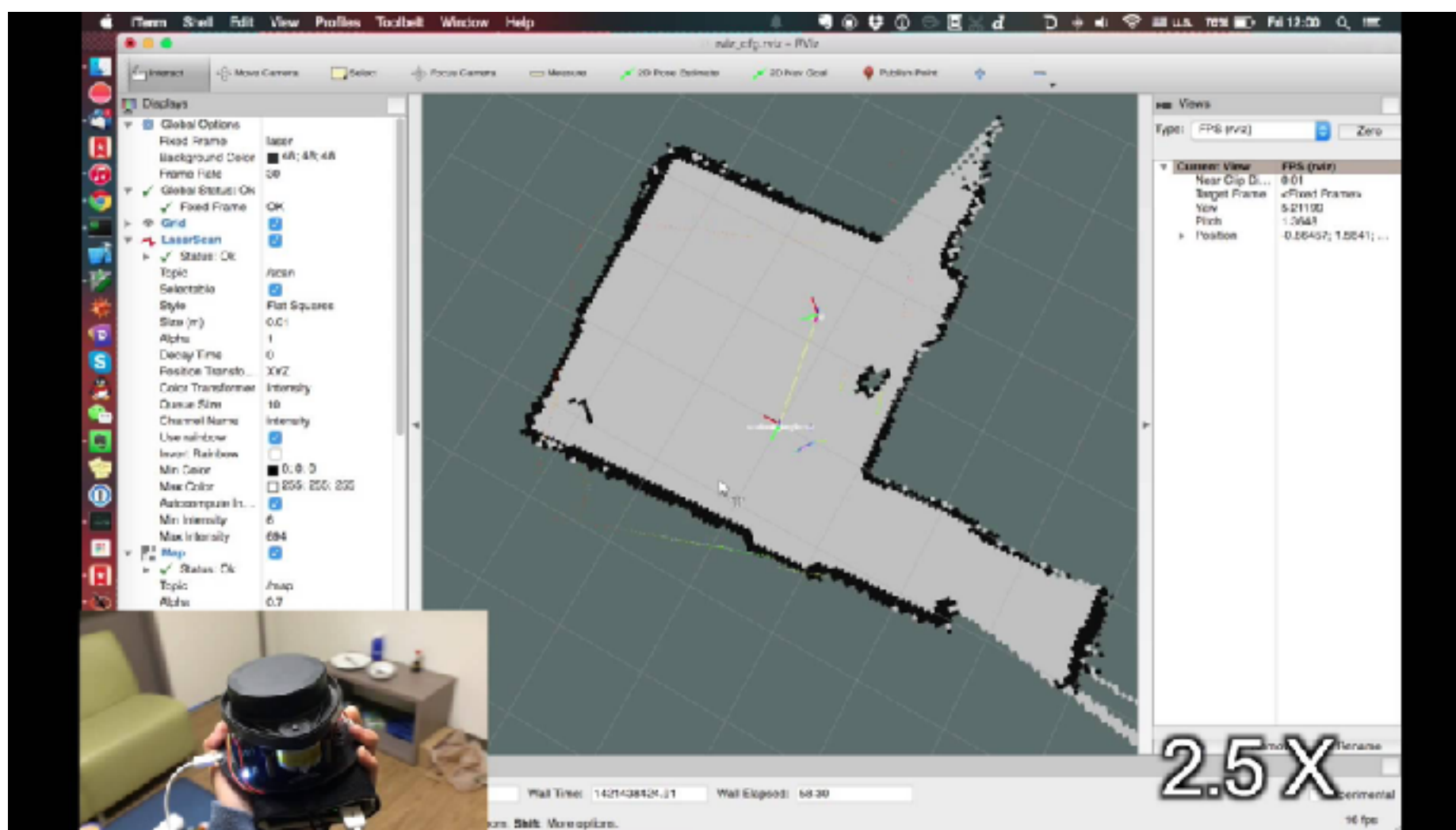


5357

neato
robotics®

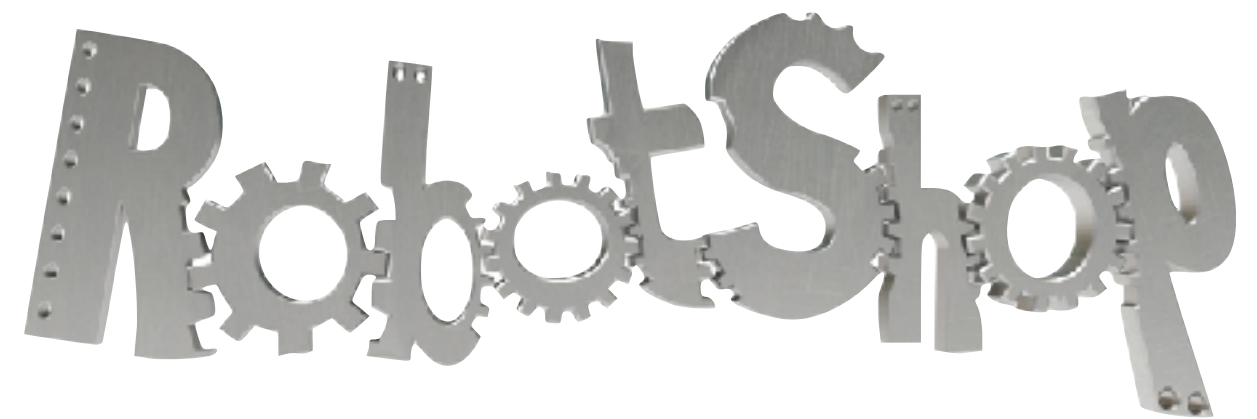


ROS +













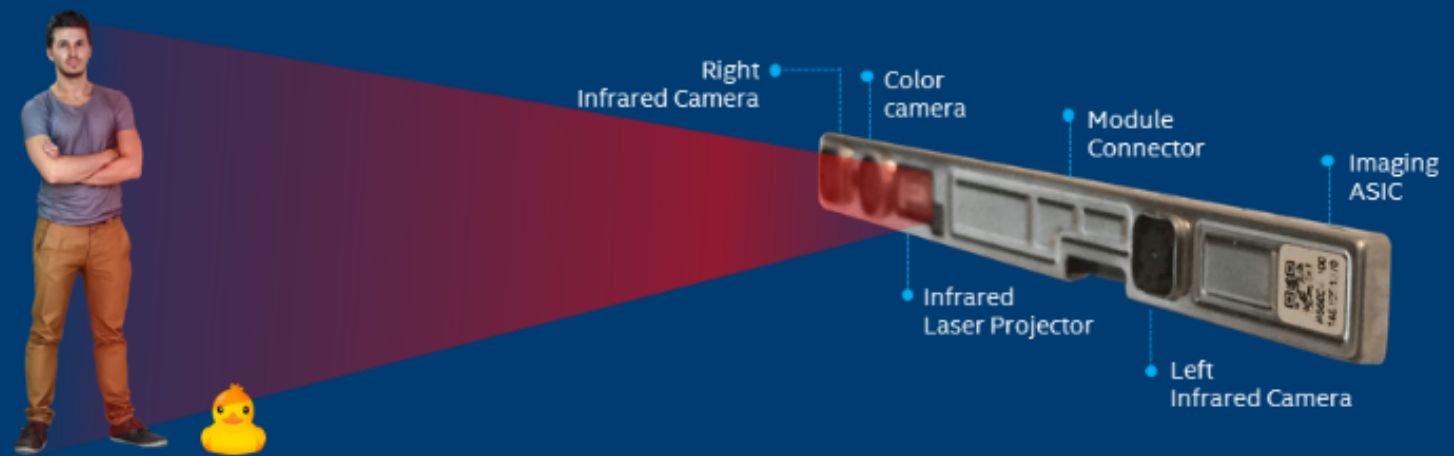




Intel® RealSense™ Technology

<http://www.intel.com/realsense>

ACTIVE IR STEREO VISION TECHNOLOGY



1 CAPTURE

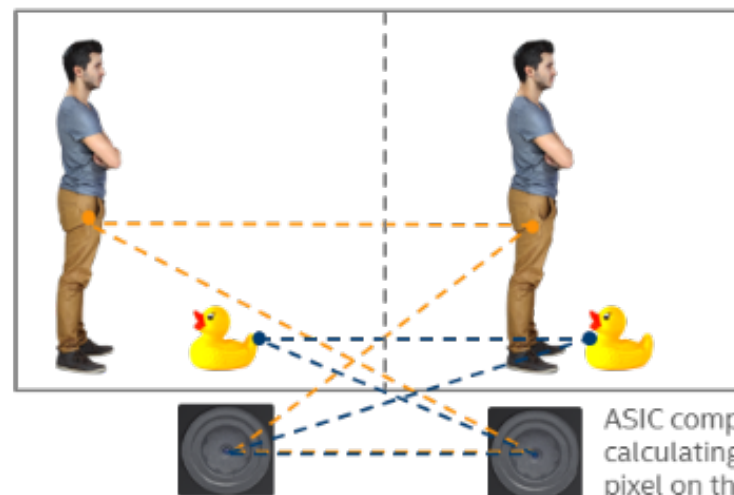
Project invisible light pattern on low texture surfaces like plain walls



Each camera sees a slightly different viewpoint

2 SEARCH

Closer objects shift more than further away objects



ASIC computes depth by calculating shift of every pixel on the image between the left and right images

3 DEPTH

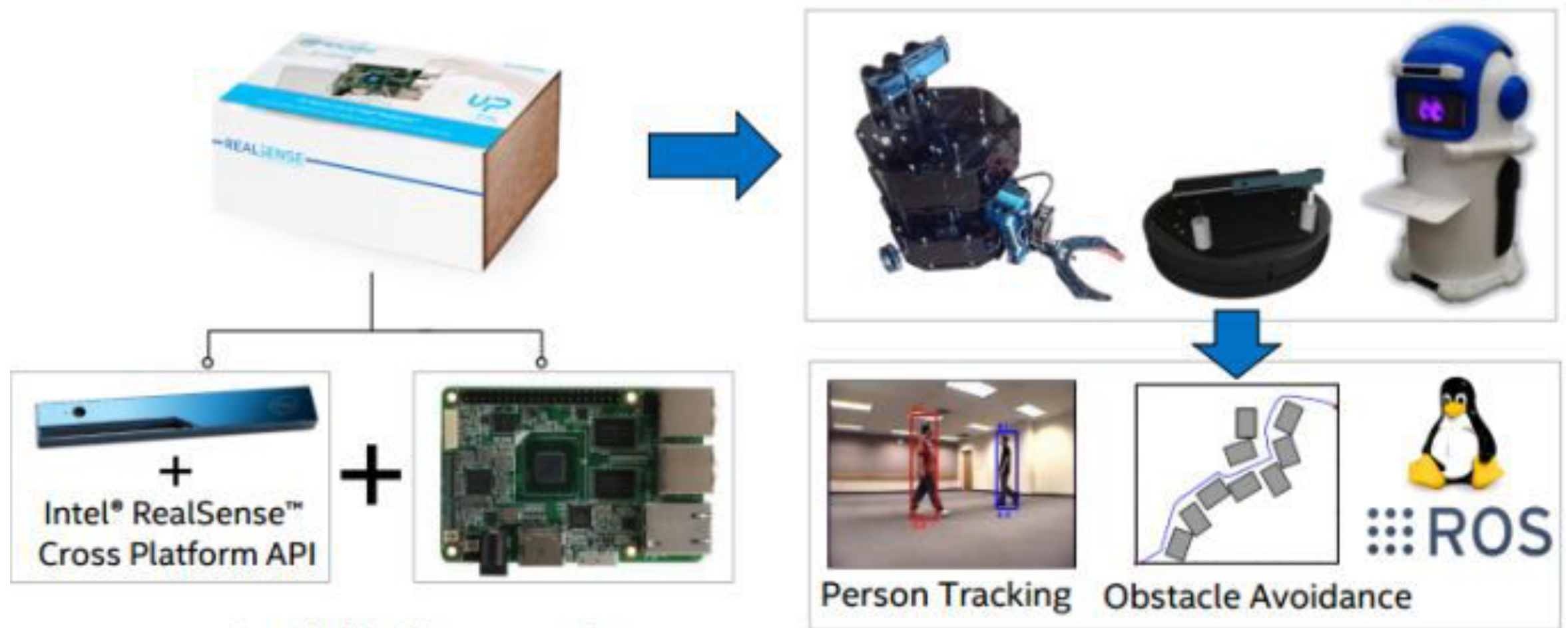


THINGS THAT MAKE YOU GO

HMMM...



Available Today: Intel® RealSense™ Robotic Developer Kit





INTEL® EUCLID™ DEVELOPER KIT

Featuring Intel® RealSense™ Technology

BLEEDING EDGE

Technology that is not yet proven and may be unreliable, difficult to use, and challenging to learn. The user may end up figuratively bloodied. More extreme than “leading edge.”

“Users of a bleeding edge technology have to be both adventurous and patient.”





“Sometimes you just gotta say...”







**And now,
The rest of the story...**

Features

Embedded PC

Intel Atom x7-Z8700

Quad Core CPU

Burst Speed 2.4GHz

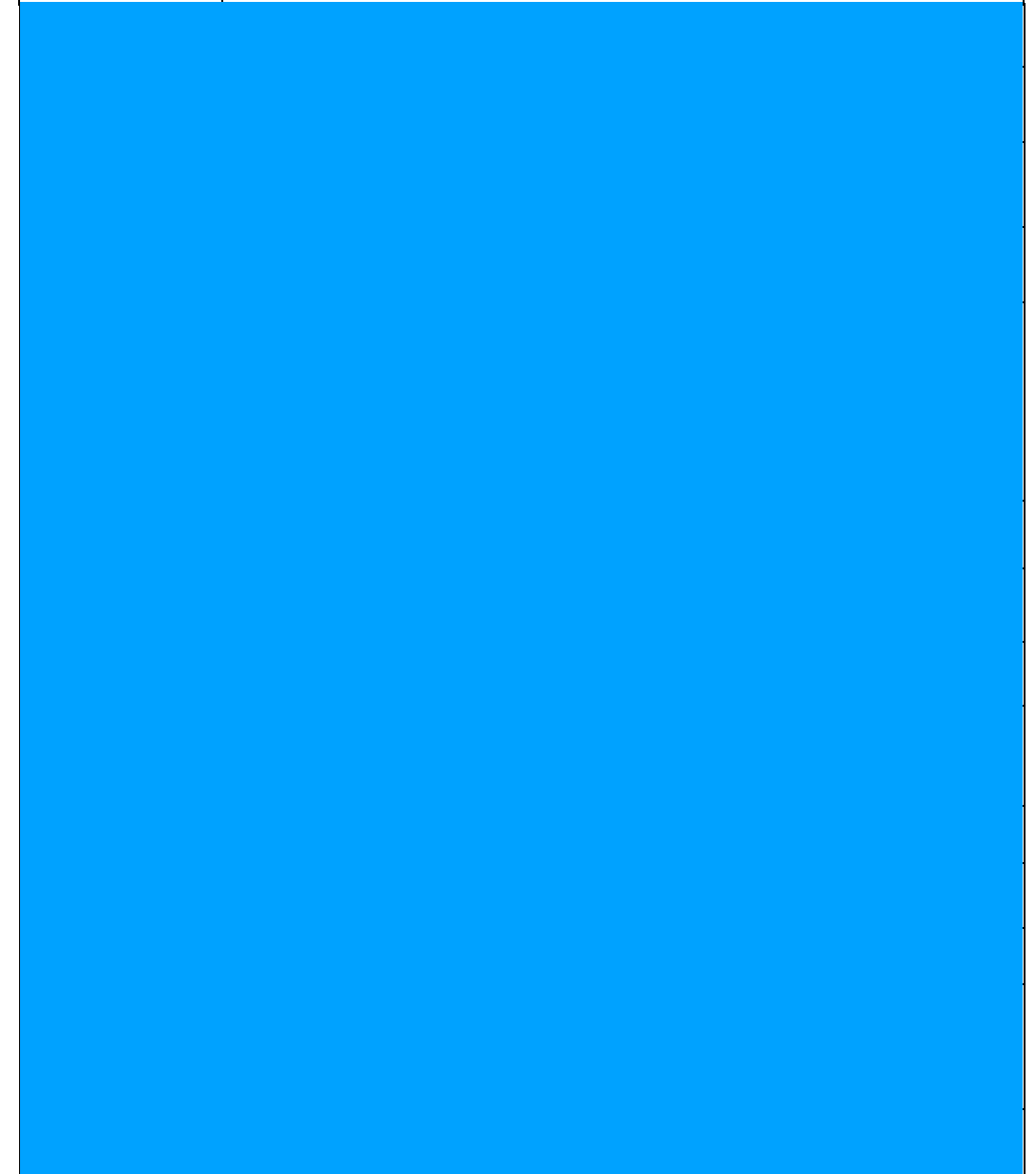
Intel Gen8 LP GPU

4GB DDR3 RAM

WiFi 802.11 a/b/g/n

Bluetooth 4.0

Feature	Specification
SOC	Intel® Atom™ x7-Z8700 Quad Core CPU Burst Speed 2.4GHz Intel Gen8 LP GPU
Memory	Single Channel, x64, LPDDR3-1600, 4GB
PMIC	Intel Whiskey Cove
WLAN	802.11 a/b/g/n, 1x1 DB
Bluetooth	BT4.0



But Wait...

**THERE'S
MORE!**

Features

GPS

32GB eMMC Flash

Micro SD Card Reader

3D Camera

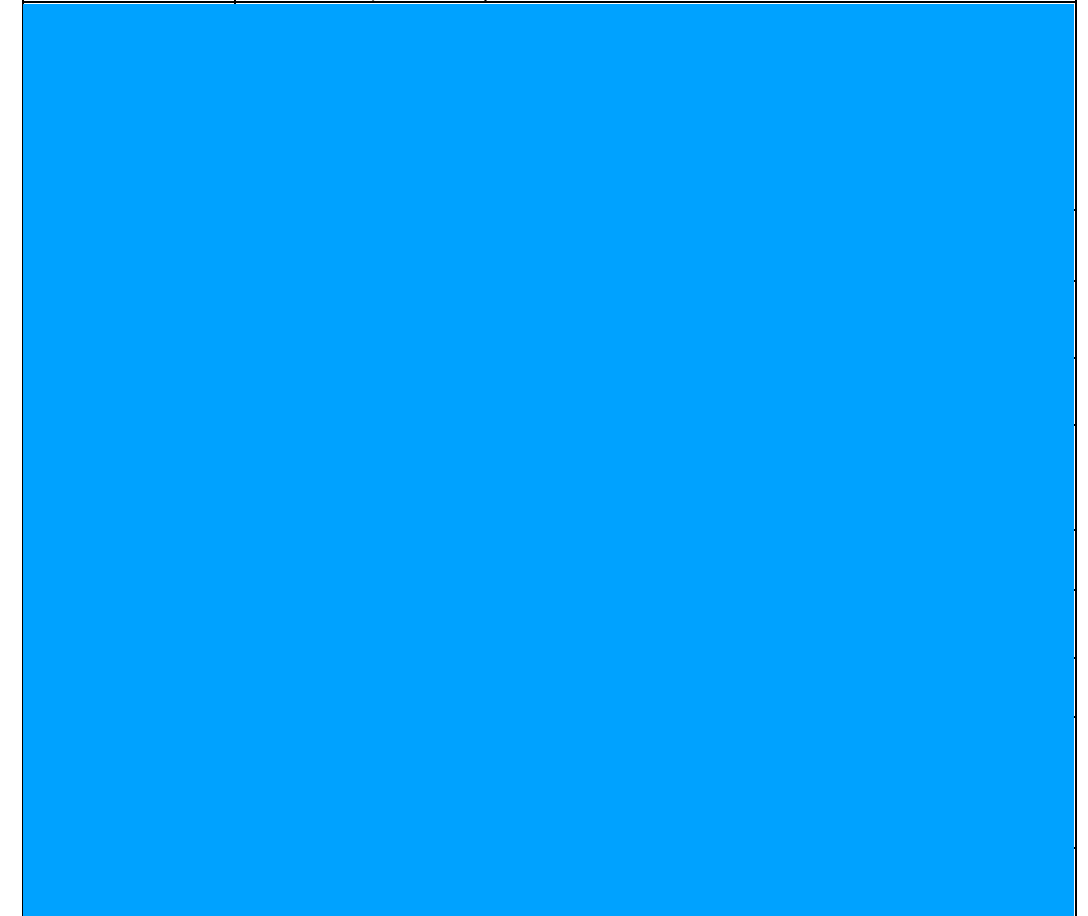
RGB Camera

Fisheye Camera

Speaker

Dual Microphones

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Bluetooth	BT4.0
GPS	Independent GPS
Storage	eMMC MLC 5.0 32GB BIOS 8MB Micro SD card reader Up to 128GB
Imaging	Intel RealSense 3D camera Intel RealSense Motion camera
Audio	Audio Codec - Low power, dual I2S interface Speaker - X1, MONO mode, 1W D-MIC - X3, two always on



But Wait...
**THERE'S
MORE!!!**



Features

Accelerometers

Gyros

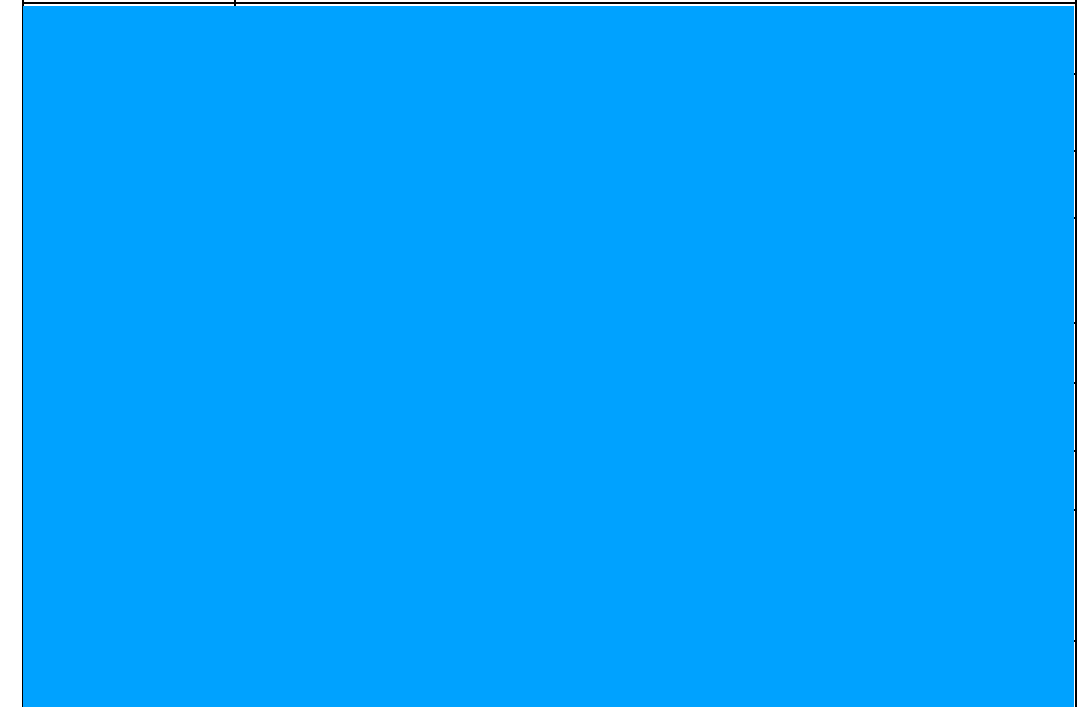
Compass

Ambient Light & Proximity

Barometer, Altimeter

Temperature, Humidity

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Sensor	Sensor Hub ISH Accelerometer Digital Compass Gyro Ambient Light Sensor & Proximity Environmental sensors Barometer/Altimeter/Humidity/Temperature sensing Thermal sensor NTC thermistor x4





But Wait...
**THERE'S
MORE!**



Features

LEDs

Two Buttons

Fan

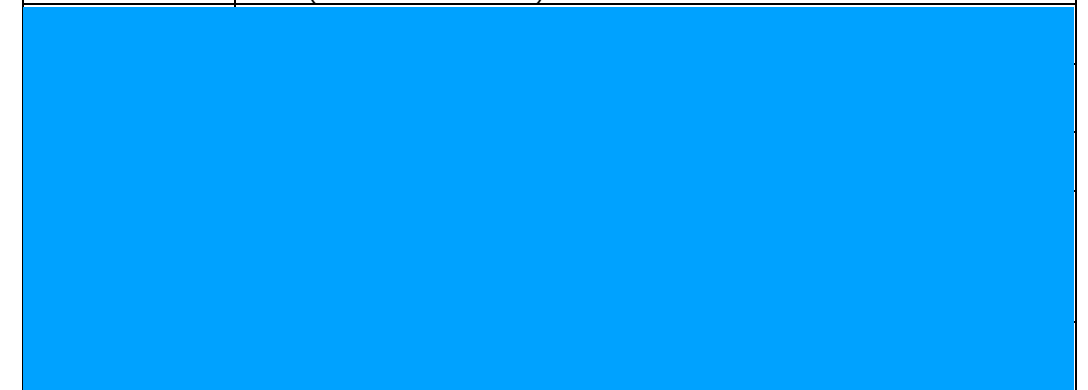
Micro USB 3.0

Standard USB 3.0

Micro HDMI

UART

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LEDs	Power On LED x1, Green, Power on/off indicator Charging LED x1, Red, Lower power and charging indicator
Buttons	Power On/Off Soft Key x2
Fan	Fan x1
I/O	Micro USB3.0 x1 Standard USB3.0 type A x1 Micro HDMI - HDMI1.4b, 4K2K@30fps UART(Micro-USB2.0 CONN) x1



BUT WAIT



THERE'S MORE!

Features

Battery

Battery Charger

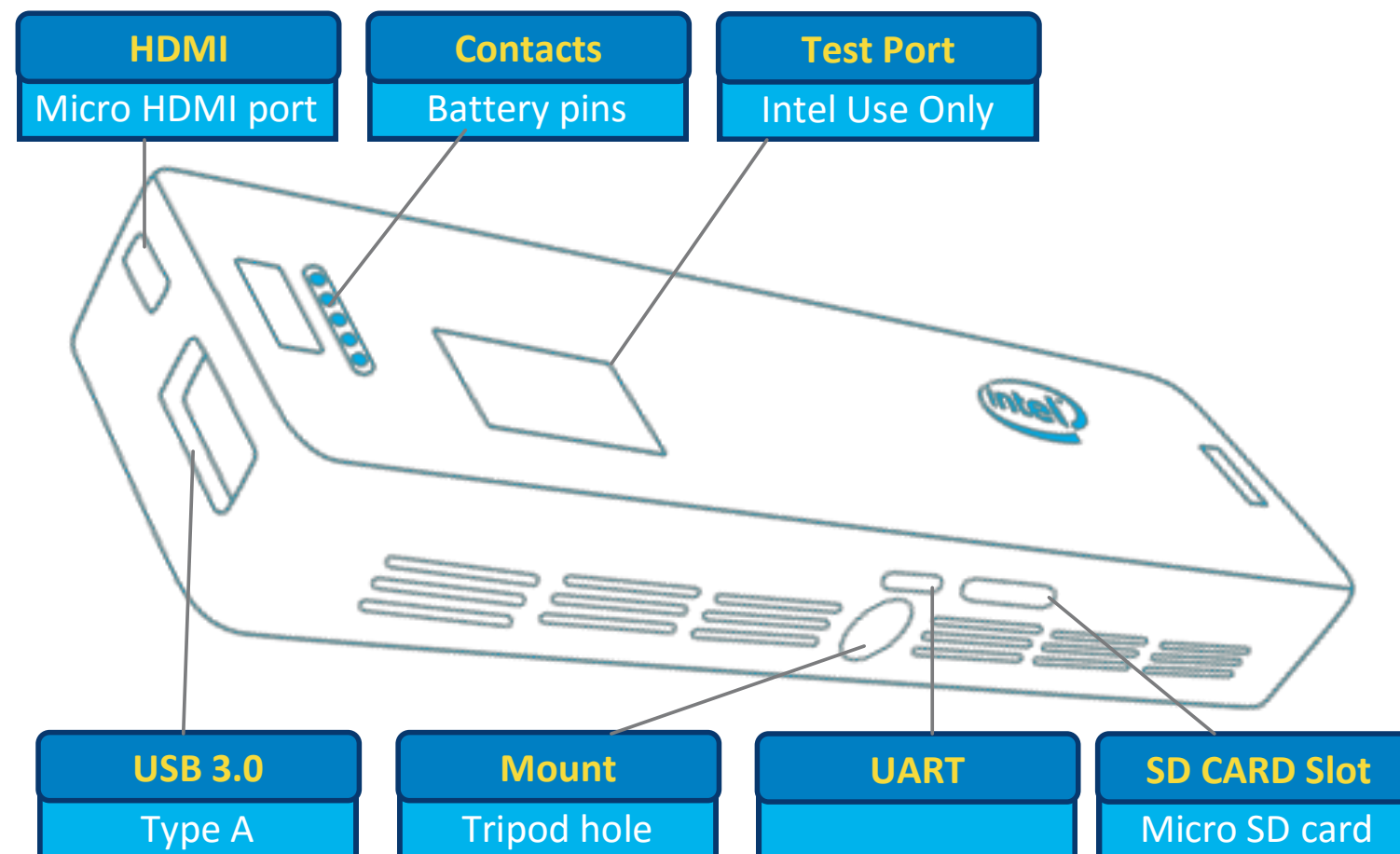
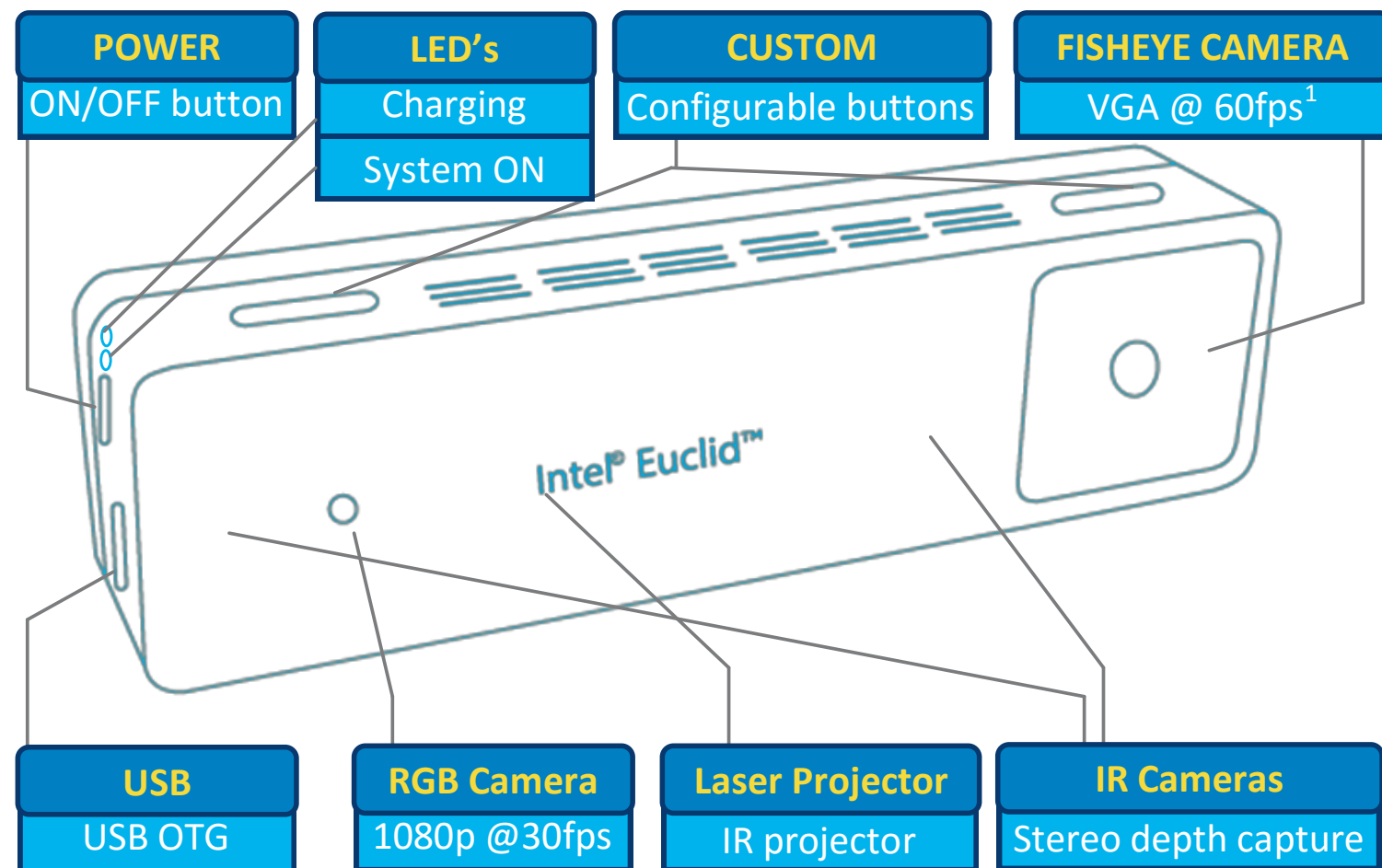
I2C, SPI

Linux with ROS

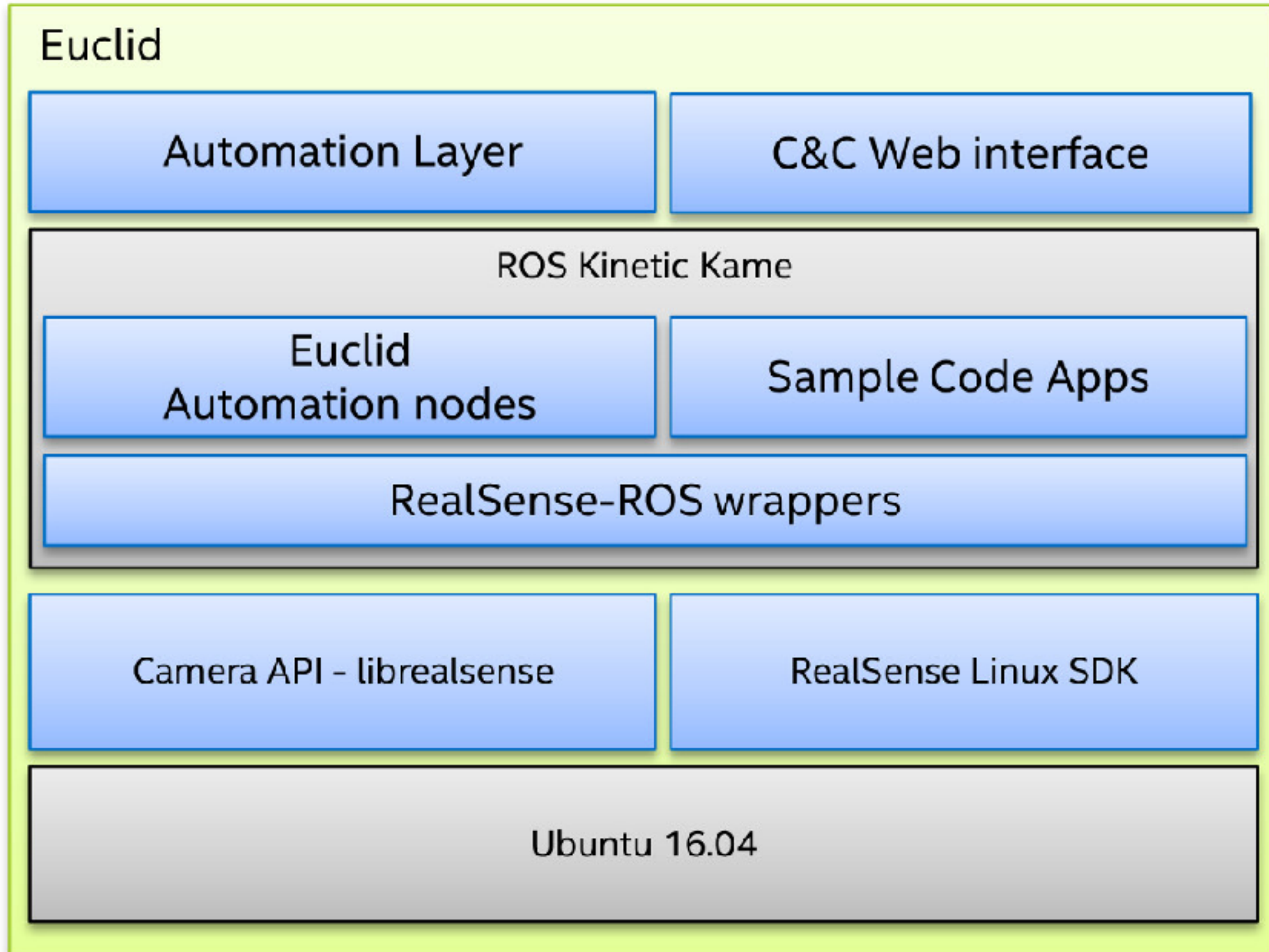
and even more!

**For Only
\$399**

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Battery/Charging	Battery - 1S1P, 3.8V, 2200mAh Charging - DC IN through Micro-USB3.0 CONN, 5V/3A
Debug Hook	LPC, USB debug, UART, SPI, I2C
OS	Linux
Accessories	DC-IN power adapter box USB 5V/3A power adapter Micro USB3.0 cable Micro HDMI cable Adaptors to UK/EU
Others	Tripod hole



Software





Cameras + Monitor

IMU + Monitor

rViz Point Cloud

SLAM + rViz

Teleop

Wander