LEARNINGS FROM OPO & SYNTHETIC SENSORS
SENSING!!
MULTIMODAL SENSING

WHAT DO YOU IMAGINE WHEN I SAY SENSING?
IMG SRC: http://www.3alogics.com/img_up/shop_pds/threealogics/design/img/img_iot03_1.png

Monnit IoT Sensors Map

A sensors guide to help navigate the "Internet of Things" / IoT

Temperature
- Temperature
- Temperature Leaded Probe
- Duct Temperature
- RTD Low Temperature
- RTD High Temperature
- Quado Temperature
- Water Temperature

Air Quality
- Humidity
- Air Flow Detection
- Carbon Monoxide

Water
- Water Detection
- Water Detection Plus
- Water Temperature
- Liquid Level

Pressure
- Pressure Meter (50 PSI)
- Pressure Meter (300 PSI)

Pulse
- Pulse Counter (2-INPUT)
- Pulse Counter (4-INPUT)

Light
- Light Detection
- Light Meter

Position / Occupancy
- Open / Closed
- Magnet Detection
- Motion Detection

Auto
- Vehicle Detection

Voltage - AC/DC
- Voltage Meter (0-600 VAC/VDC)

Voltage - AC
- Voltage Detection (AC-200a)
- AC Current Meter (20 AMP)
- AC Current Meter (150 AMP)

Voltage - DC
- Volt Meter (0 - 5 V)
- Volt Meter (0 - 15 V)

Low Voltage
- mA Current Meter (0 - 1.5 mA)
- mA Current Meter (0 - 15 mA)
- Dry Contact

Miscellaneous
- Asset
- Button Press
- Compass
- Flex
- Granis Per Pound
- Seat Occupancy

IoT Sensing in any Flavor You Like
- Wireless Performance
- Long Range (250 ft.)
- Super Long Range (1000 ft. +)
- Power Source
- AA Batteries (10-yr. life)
- Coin Cell (5-yr.)
- Industrial 3.6V Lithium (10-yr.)
- Line Power (w/ AA Battery Backup)
- Solar Power (w/ Lithium Backup)
- Casing / Enclosure
- Indoor
- Outdoor / Industrial / NEMA Rated
- Gateway
- Cellular, Ethernet, USB, WiFi / Serial Modbus

IoT Starter Kits available

Ask about Monnit’s IoT vantage Partner Program
(Reseller, Integrator, OEM / White Label)

Get IoT Started
Leverage Data, Protect Resources & Save Money.
801-561-5555
info@monnit.com

Note: Links in this map lead to AA battery-powered product web pages. If available in both ALTA Advanced & Monnit Standard versions - the link will lead to the ALTA product version. Additional power, performance, enclosure and accessory options are available for each sensor type.
ADVANTAGES AND DISADVANTAGES OF MULTIMODAL SENSING
OPO: A WEARABLE SENSOR FOR CAPTURING HIGH-FIDELITY FACE-TO-FACE INTERACTIONS

• Captures Face to Face interactions (suggested in title)

• Is it a hack? Is it absolutely needed? It is multimodal approach!!

• Parameters for localization and distance estimation, Eg. RSSI, ToA, AoA, TDoA, etc.
OS CONCEPTS DEALT WITH OPS

- Over TinyOS.
- Must deal with broadcast.
- Communication and Collision
- Discovery and Synchronization.
- Always-On (Low power mode).
EXPERIMENTS AND ANALYSIS
SYNTHETIC SENSORS
MACHINE LEARNING AND THE CLOUD
MULTIPLE ORDER SYNTHETIC SENSORS?
OS IMPLICATIONS??
IS IT TRUE PLUG AND PLAY?
REDISCOVER MULTIMODAL SENSING?
THANK YOU!!