New Product

- THINK. SENSE. SPEAK.
- ADVANCED SENSOR TECHNOLOGY AND TOTAL ROOM INTEGRATION
New Product

O₃ Sensor Hub

New Breakthrough Product

- LIKE A THERMOSTAT…BUT BETTER
- BREAKTHROUGH! SENSOR FUSION
- BREAKTHROUGH! EXPERIENCE
- CONNECT TO O₃ CPU
- CEILING MOUNT
New Product

O₃ Sensor Hub

What is it?
THINK. SENSE. SPEAK.

ADVANCED SENSOR TECHNOLOGY AND TOTAL ROOM INTEGRATION
<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>TEMPERATURE</td>
<td>IR</td>
</tr>
<tr>
<td>OCCUPANCY</td>
<td>PIR</td>
</tr>
<tr>
<td>LIGHT COLOR</td>
<td>LIGHT INTENSITY</td>
</tr>
<tr>
<td>HUMIDITY</td>
<td></td>
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</tbody>
</table>
Speak.

- WITH COLOR
- WITH MUSIC
Think.

You shouldn't do things differently just because they're different. They need to be... better.

- TEMP SENSOR FUSION
- OCCUPANT SENSOR FUSION
- O3 CONTROLLER
  + O3 APP
  + enteliWEB
Temp Sensor Fusion

- **3 TEMP SENSORS**
  - Combines sensor readings together with machine learning techniques to model.

- **MACHINE LEARNING**
  - Kalman filtering
  - Modelled over time
Temp
Sensor Fusion

- COMPOSITE
- IR + THERMISTOR
- ACCURACY
3 SENSORS
- PIR – CHECK FOR MOTION
- MICROPHONE – MEASURE NOISE
- IR – HEAT SPIKES (I.E. PEOPLE)

MACHINE LEARNING
- ONLY PIR WILL TRIGGER OCCUPANCY
- SOUND ONLY CONSIDER AFTER OCCUPANCY TO LATCH IT ON
- AMBIENT NOISE FILTERED OUT
Location

- CLOSER TO OCCUPANT
- INDIRECT SUNLIGHT
- RADIO ANTENNA
- EASY TO MOVE WALLS / EQUIPMENT
- WALL ACNE

- OCCUPANCY
- TAMPER AVOIDANCE
- OPEN OFFICE CUBICLES
- T-BAR vs WALL INSTALLATION
- SENSING AND CONTROL DEVICES
- GREAT FOR RETROFIT
- WINDOW / DOOR CONTACTS

MORE ON THIS IN A MOMENT

IR BLASTER
- SENSING AND CONTROL DEVICES
- GREAT FOR RETROFIT
- WINDOW / DOOR CONTACTS
ROOM LOCATION
HUBS KNOW WHEN YOU’RE NEARBY

EASY

EXPERIENCE
ACTIVITY CONTROL
HUB FEEDBACK – LED RING, SOUND
BEACON BROADCASTS MESSAGES TO NEARBY DEVICES

MOBILE DEVICES DISPLAY LOCATION-BASED MESSAGES
BEACONS ARE ABOUT PROXIMITY

CLOSEST ROOM IS LISTED ON TOP

MULTIPLE HUBS CAN BE BOUND TO ONE ROOM, FOR OPEN OFFICES
New Experience

Hub 1
Room 1

Hub 2
Room 1

Near
Far
Near
Far
Activity Based Control

- ONE-TOUCH CONTROL
  LIGHT LEVEL, BLIND POSITION, TEMP SETPOINT

- CUSTOMIZED
  NOT “CANNED”
  PROGRAM CUSTOM ACTIVITIES

- RE-USABLE
  STORED IN EWEB
  CREATE ONCE USE IN MULTIPLE ROOMS
Take Control

- **EXPLICIT CONTROL**
  - LIGHT LEVEL, BLIND POSITION, TEMP SETPOINT

- **ROOM SPACIFIC**
  - ONLY EQUIPMENT IN ROOM IS DISPLAYED

- **OCCUPANT RULE**
  - PERMISSIONS IN EWEB
SCHOOL:
COULD REPLACE 6 DEVICES WITH ONE O3 HUB
Most Advanced Device in a Room

Think.
- Sensor Fusion
- Instant Occupancy
- Activity Based Control
- Programmable O3 CPU

Sense.
- IR + Thermistor
- PIR + Sound
- Light Intensity + Color
- Humidity
- EnOcean
- One Sensor – HVAC, Lighting, Access

Speak.
- Play Sounds
- Color Ring
- Mobile App
## Benefits for Everyone

|---------------|-------------|----------------|
| - Multi-sensor cluster  
- Installation in ceiling  
- Twist-in mounting plate  
- Free to move office walls, equipment, etc | - Control temperature at occupant location  
- Bluetooth beacon  
- Mobile app  
- Trust – light & sound interaction  
- No wall acne | - Energy - Instant occupancy  
- Energy - Indirect light sensing (daylighting)  
- Tamper avoidance  
- Free to move office walls, equipment, etc |