

## Quantimetrica's solutions via voice, add hands free functionality to most devices



- Detect human presence through voice and switch power hungry devices off e.g. lighting, heating, when not required.
- Use our miniature hardware to convert voice commands to instructions for nearby devices through wireless (e.g. Bluetooth, ZigBee, WiFi or future radios).
- Offer a detachable voice controller for use in sensor network systems.

### Introduction - what we do

Quantimetrica has developed solutions that can detect human presence by monitoring for voice activity (vs. other sounds or noises), as well as miniature, low-cost controllers to operate devices using simple voice commands. This enables the supply of power to lighting, heating, billboards, fountains, displays/demos when people are actually present to use them and similarly switches power off after a timeout period when not required (e.g. when no one is present overnight to save energy).

A miniature controller enables the operation of any smart or non-smart devices using simple voice commands. This can save energy and also alert the user's centrally controlled unit if available. The system can easily be retrofitted to the user's local electrical system to control existing infrastructure (e.g. lighting, heating etc.)

### The Team

The team's core members have worked together for an average of 15 years and each colleague has over 20 years experience in the beginning to end design, development and production of real time systems and expertise in devising architectures for OEMs via retailers or as part of larger systems. Dr. David Tupman, head of our Technical Advisory furthermore, presided over launches such as early generations of the iPod, as well as the first iPhone's launch. Further engineering support is available via a group of consultants.

### The QMI Voice- Enabled Controller

QMI, our tiny yet highly flexible hardware platform has been developed (as per picture with coins) with its own microcontroller and on-board chip microphone amplifier. A complete QMI module is shown on the top left. Quantimetrica has teamed up with Atooma ([www.atooma.com](http://www.atooma.com)) to utilise such module commercially. The design is developer-friendly for easy integration with larger systems, the Arduino/Raspberry communities or easy prototyping.

### Possibilities, applications, collaborations

Our solutions address the need to operate various devices and applications by short voice commands instead of through a complicated series of keystrokes and controls. It makes them therefore accessible to a wider audience and especially the elderly, children, vulnerable, non-tech savvy as well as others. Users benefit through a simple to use, portable, miniature, ultra low power, and low-cost implementation. The voice command can launch a series of instructions to a receiving device (e.g. smartphone/drone/home automation etc.) via radio (Bluetooth, ZigBee, WiFi).

It further offers an easily retrofitted way of controlling smart and less smart devices through voice commands. One crucial novelty is that since processing is done locally, internet connection is not required and hardware cost is minimised.

Quantimetrica is developing jointly with a European software company a sensor network with QMI in a crucial role as a detachable voice controller.

For further information  
please contact:  
[info@quantimetrica.com](mailto:info@quantimetrica.com)  
[www.quantimetrica.com](http://www.quantimetrica.com)