# Does your coffee machine speaks Bocce?



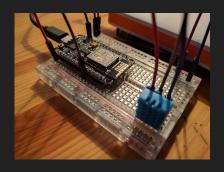
## Demo

Collect, store and visualize sensor readings.













### Modbus

Modbus is a serial communication protocol developed in 1979 for use with programmable logic controllers (PLCs). In simple terms, it is a method used for transmitting information over serial lines between electronic devices., it's openly published, royalty-free, simple and robust.

https://en.wikipedia.org/wiki/Modbus

https://github.com/yaacov/node-modbus-serial

https://github.com/bashwork/pymodbus

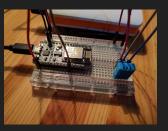
### Sensor

Any modbus capable controller (TCP or RTU).

It is very easy to teach devices to speak modbus.

https://github.com/yaacov/ArduinoModbusESP

https://github.com/yaacov/ArduinoModbusSlave





### Collector

Collecting metrics from device and store the data in a data store.

https://github.com/yaacov/node-modbus-cli

https://github.com/yaacov/hawkular-client-cli

https://github.com/yaacov/fosdem-2017/blob/master/scripts/collector\_sensor.sh





### Data-store

It's a hawk with a monocular. Hawks are known to have a very sharp vision and very good hunters, they can catch preys anticipating their movements at a very fast speed. The analogy with this project is our goal is to be able to monitor things and catch anomalies in fast pace environments.

The project started around the end of 2014

http://www.hawkular.org/



### Visualizer

Grafana provides a powerful and elegant way to create, explore, and share dashboards and data with your team and the world.

http://grafana.org/



# Questions?

Internet of Things devroom, FOSDEM 2017

