



SensorGnome - fresh data from the field to your plate

An open source system for moderate-bandwidth data acquisition, processing, and sharing.

HELP! I have one and don't know [how to connect to it!](#)

Domains of application

- [VHF telemetry](#) (record signals from transmitter tags deployed on animals)
- acoustic monitoring (record signals from microphones with high-precision timestamps)
- (okay, only two so far)

SensorGnome the box

- a computer ([beaglebone](#) for now) running the [Debian 7.0](#) distribution of Linux with custom software
- a USB hub for attaching devices to the computer; physical ports are numbered so that multiple attached devices of the same type are easily distinguished in recorded data.
- dual power supply: a universal AC adapter and a 9-36 Volt DC/DC converter for battery / solar setups
- GPS for location and 1-second (standard) or sub-millisecond (custom kit) UTC clock synchronization.
- USB Audio class sensors such as microphones and [funcubedongle](#) radio receivers
- user interacts with SensorGnome via a web interface available on a USB 2.0 cable (with included drivers for Windows and Mac; none needed for Linux) or an ethernet crossover cable (no drivers required).

sensorgnome.org the project

- hosts software development and documentation
- acts as central data repository
- hosts processing of data by users (and eventually live monitoring)

- facilitates sharing of data across projects (you tagged a bird, someone else detected it)

2018-02-21 **New:** notable deployments will be mentioned [here](#).

Please consider joining the [sensornomads mailing list](#).

Developed by Phil Taylor and John Brzustowski (and many, many other helpers and testers) at Acadia University, Nova Scotia, Canada.