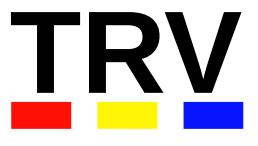


OpenTRV

<http://opentrv.org.uk>

<http://opentrv.org.uk/help-wanted/>

@OpenTRV

open  TRV

OpenTRV

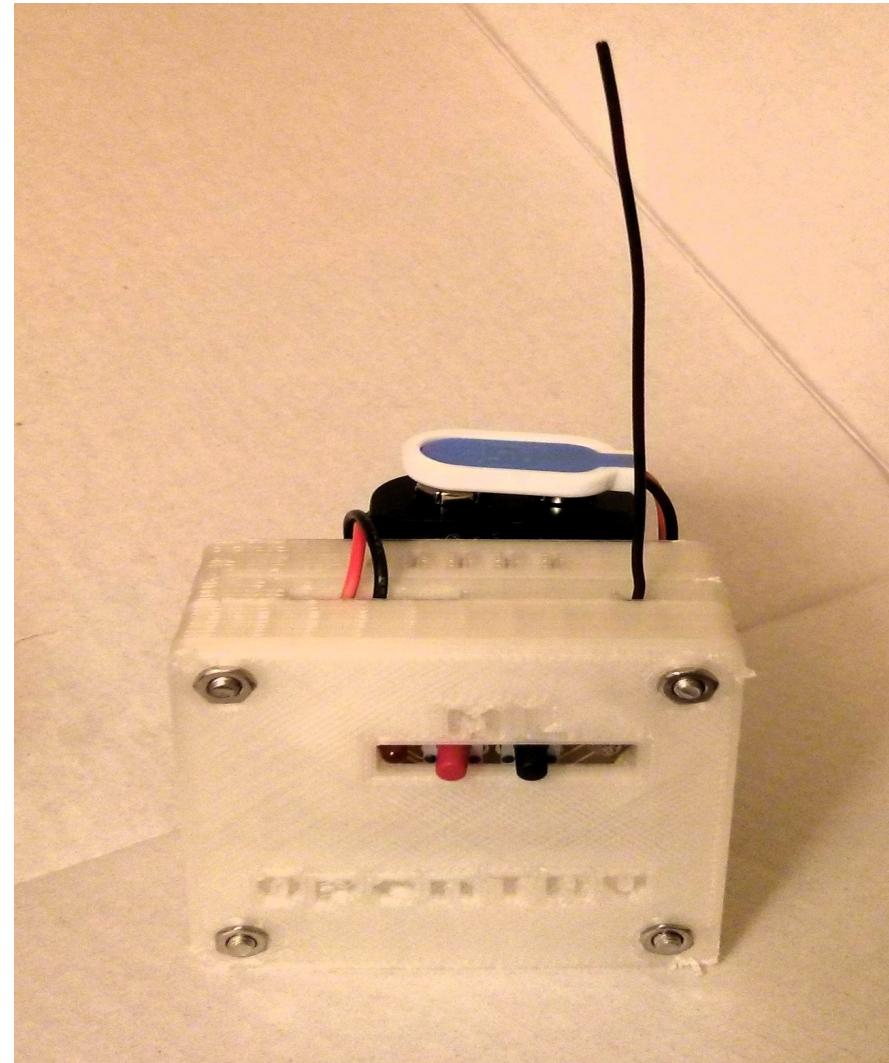
Giving away energy saving
technology as hard as we can!

Damon Hart-Davis
Project Lead



open TRV

Old and New



open **TRV**

What is OpenTRV for?

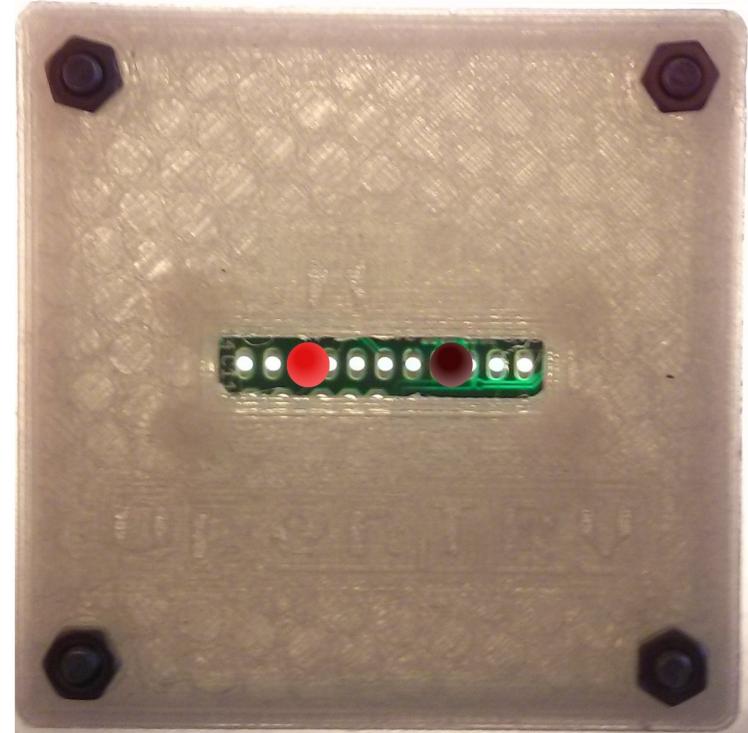
- Heating is 60% of UK domestic energy consumption
(DECC) = 20% of UK carbon footprint
- **Retrofit** is only practical solution
 - 20m UK homes extant in 2050
- 60% of £1400 * 20m homes = £17b/year
- Most people heat empty rooms
- Better: a cosy warm **bubble of heat** that follows you around your home

Smart Heating How?

- Zoning (~50% savings possible)
- Occupancy Sensing
- Anticipation (saving becomes delightful)
- Cheap (~£10/room)
- Simple (Internet NOT required)
- Interoperable for mix-n-match

OpenTRV

- Easy to use
 - Can a 4 year old use it?
- Low cost (~£100/house)
- Retrofit

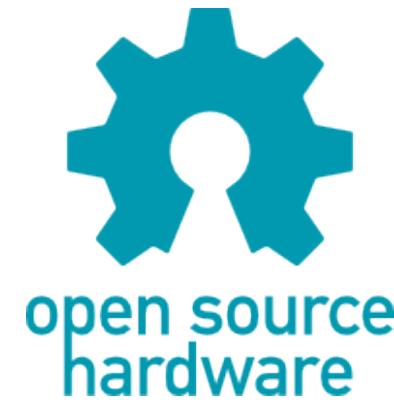


Mass market product

open **TRV**

Giving it away

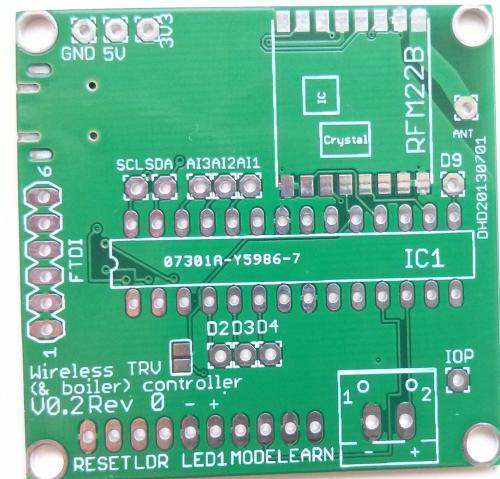
- Open source software (Apache)
- Open source hardware (Solderpad)
- Open source 3D box design (Apache)

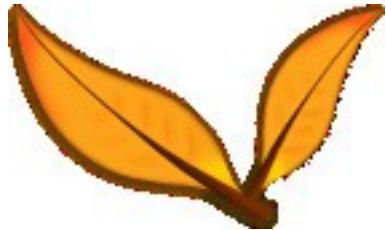


open **TRV**

Current state

- PCB design (fourth revision)
- Microcontroller software
- Documentation
- Mailing lists
- IRC
- Web sites
- 3D box design





tvrrug.org.uk



open TRV

Experiences

- Interest worldwide – recent enquiries from eg NL, Spain, Germany, UK
- Connecting Homes (3rd prize!)
- Dynamic Demand Hackathon
- Engaging with energy retailers
- Engaging with academia
- Engaging with government

Future

- Trials (does it do what we say on the tin?)
- IoT: optional Internet / smartphone connectivity
- New efficient and secure open protocol
- Own valve driving hardware 2014
- Hobbyist/DIY kits for sale 2014
- Help wanted (Foundation?):
 - Lawyer
 - Industrial design engineer

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