

Carbon reduction done right



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Prick the Carbon Bubble



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Old Joke

John Wanamaker

"Half the money I spend on advertising is wasted
the trouble is I don't know which half."

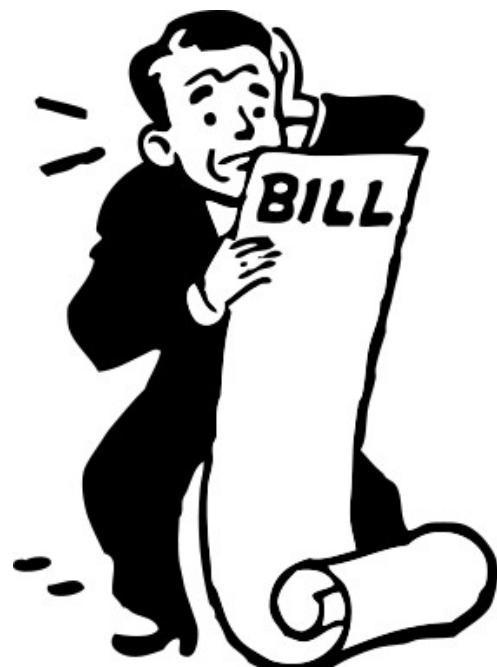


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No Joke

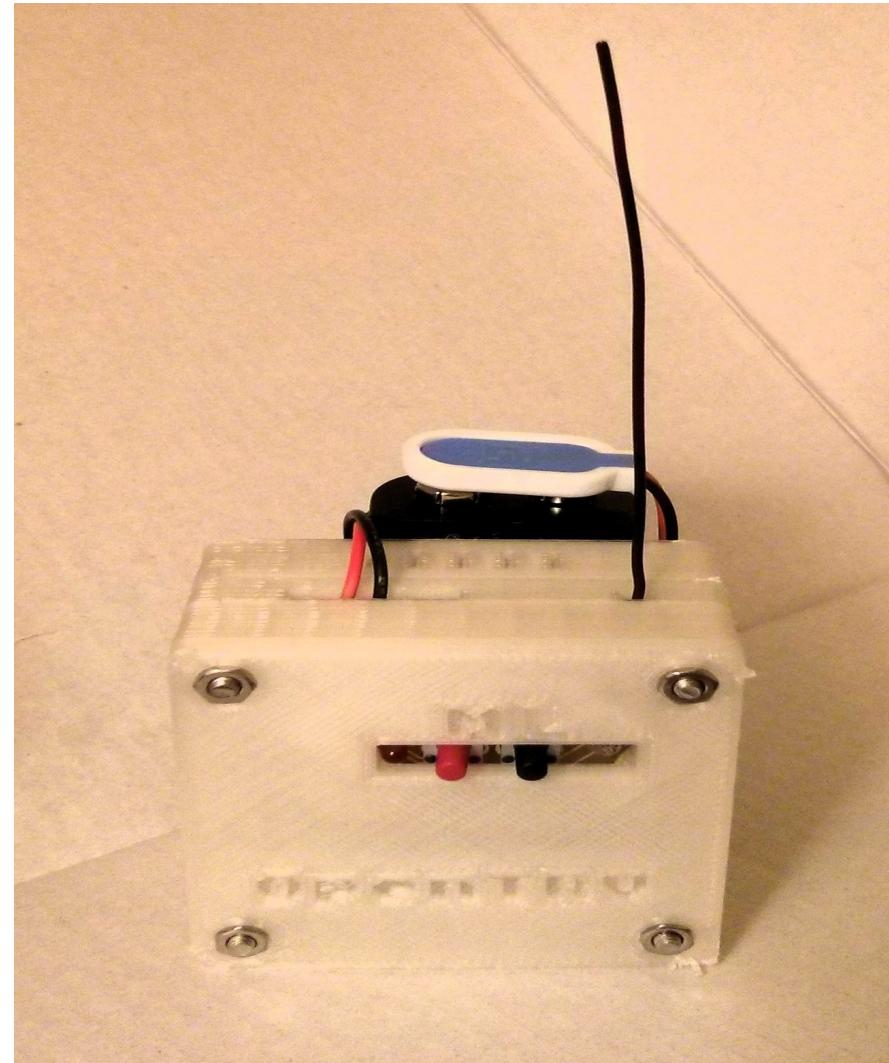
A. N. Homeowner

"Half the money I spend on heating is wasted;
the trouble is I can't eliminate that half."



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Old and New



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What is OpenTRV for?

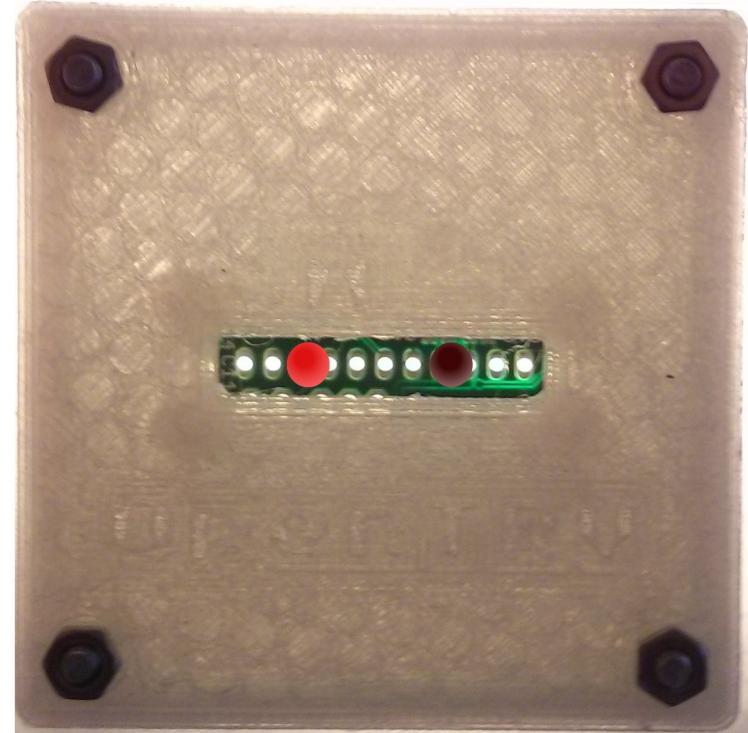
- Heating is 60% of UK domestic energy consumption
(DECC) = 20% of UK carbon footprint
- **Retrofit** is only practical solution
 - 20m UK homes extant in 2050
- 60% of £1400 * 20m homes = £17b/year
- Most people heat empty rooms
- Better: a cosy warm **bubble of heat** that follows you around your home

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

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



Mass market product

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OpenTRV People



Mark Hill
Damon Hart-Davis

And our FOSSH team!

Talking to ...



Pilots running, seed funded, award-winning
Serial entrepreneurs



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OpenTRV's Commerical USP

Fast payback

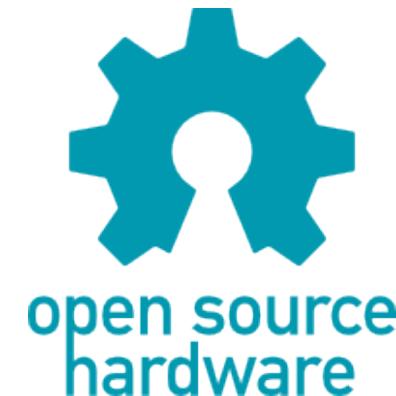
Service model: we're selling the **sizzle**

IoT



Giving it away

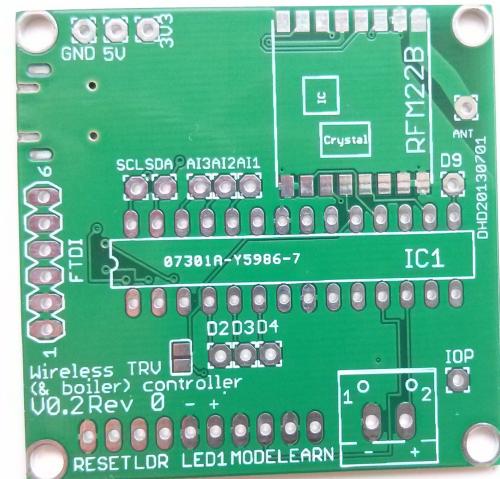
- Open source software (Apache)
- Open source hardware (Solderpad)
- Open source 3D box design (Apache)

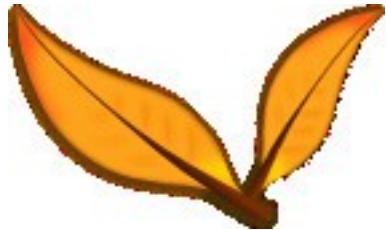


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Current state

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





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Experiences

- Interest worldwide, especially EU
- Connecting Homes (we won a prize!)
- Funding from Climate-KIC
- Engaging with energy retailers
- Engaging with academia
- Engaging with government

Future

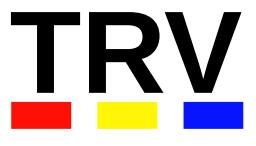
- Product for Winter 2014 incl valve drive
- More trials (does it do what we say on the tin?)
- IoT: optional Internet / smartphone connectivity
- New efficient and secure open protocol
- Hobbyist/DIY kits for sale **now**
- Help always welcome (Foundation?):
 - Lawyer
 - Industrial design engineer

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<http://opentrv.org.uk>

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

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