

Raspberry Pi Projects

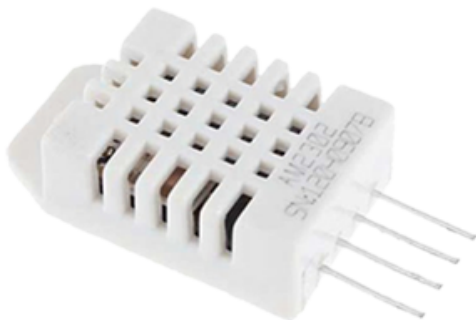
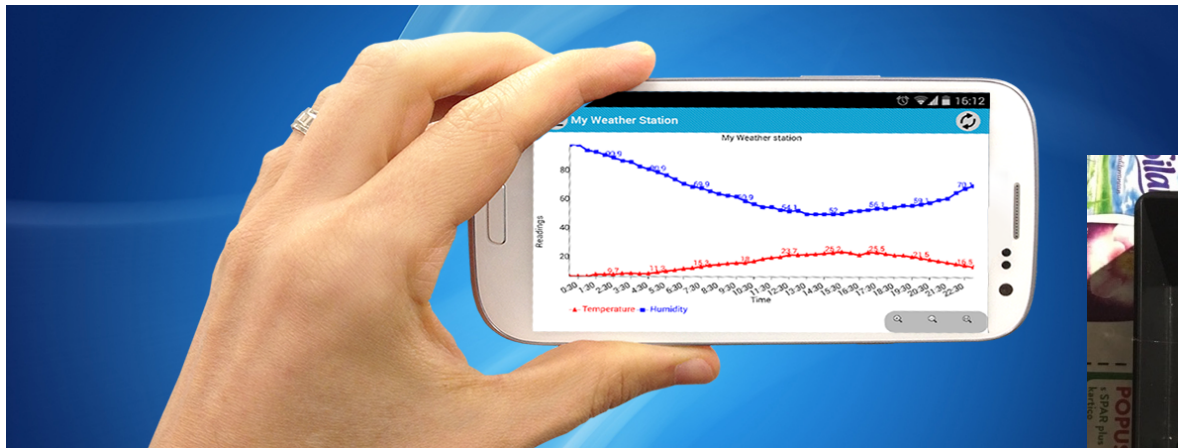
- for your home -

Overview

- Weather station
- Heatpump hack
- Garage door opener

Raspberry Weather

- <https://www.raspberryweather.com/>



Raspberry Weather (2)

- Necessary parts
 - RPi B
 - Adafruit Pi cobbler breakout kit
 - Breadboard wire bundle
 - Full sized breadboard
 - DHT22 or DS18B20 sensor
 - Wifi dongle (if necessary)

<https://www.raspberryweather.com/necessary-parts/>

Raspberry Weather (3)

- Sensors
 - DHT22: temperature and humidity but not very reliable
 - DS18B20: reliable, waterproof, but no humidity

<https://www.raspberrypiweather.com/which-sensor-to-buy/>

Raspberry Pi (4)

- Software stack
 - Apache/nginx
 - Wordpress
 - Python (for accessing sensors)
- Optional
 - Android app (id=com.raspberryweather)

Hacking your heatpump

- Well, Mitsubishi ones at least
- Tutorial

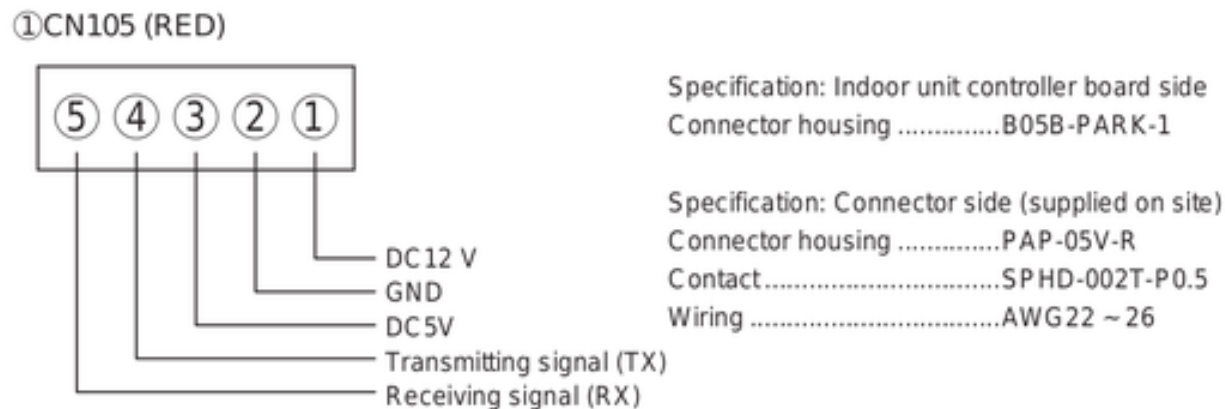
<https://nicegear.co.nz/blog/hacking-a-mitsubishi-heat-pump-air-conditioner/>

- Code

<https://github.com/hadleyrich/MQMitsi>

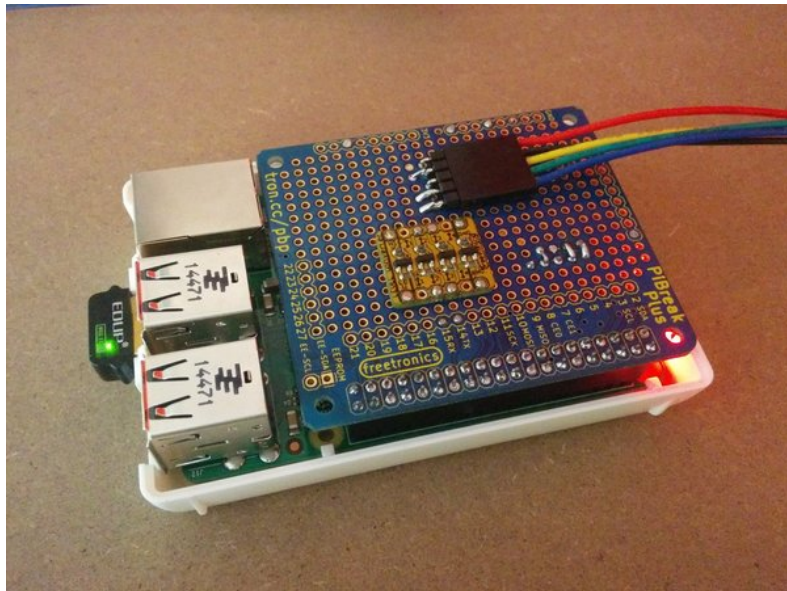
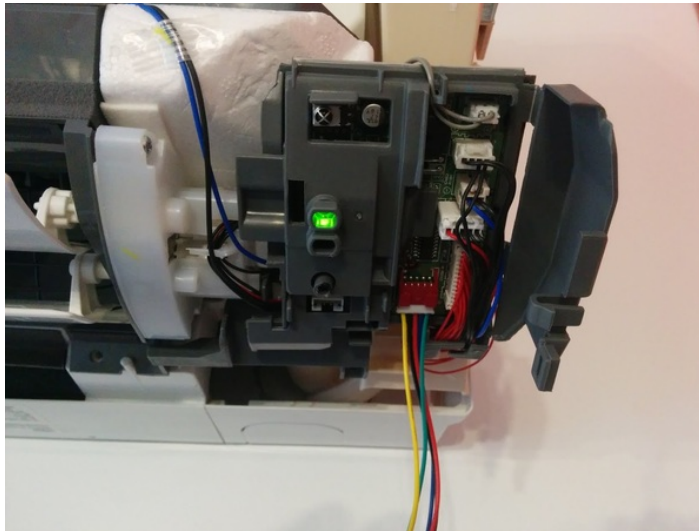
Hacking your heatpump (2)

- Communication port CN105
- 5V TTL UART @ 2400 bps and even parity



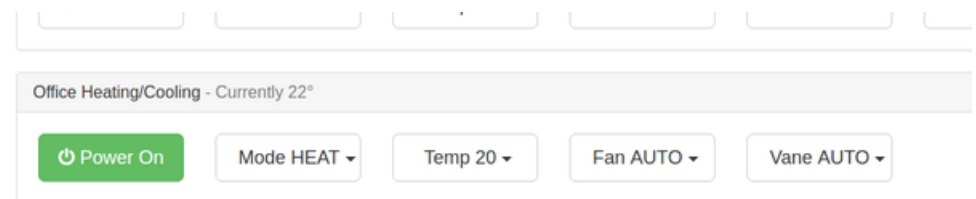
Hacking your heatpump (3)

heatpump



RPi breakout board

Control interface



Garage door opener

- Found at instructables

<http://www.instructables.com/id/Raspberry-Pi-Garage-Door-Opener/>

- Overview

