## Haw make universal receiver for all kinds of radio (RF) sensors just for \$9

Passing ships,
Negotiations local services
Transport systems and more.
How to get access to all this information.
Including AIS protocol (time coming ferry Helsinki-Tallinn example)

## RTL-SDR and GNU Radio with Realtek RTL2832U [Elonics E4000/Raphael Micro R820T] software defined radio receiver for \$9.

We have already booked is a device for the test (I hope - since my requests to the server and touchscreen monitor and were not satisfied, as well as money for NooLight sensors also were not given).

It can be connected to the TP-Link and receive signals from radio sensors of different companies. But for this you need an experienced engineer or junior engineer docile. Jorge Soto (junior engineer) is necessary to explain that the office is not a beach and not a elementary school.

http://superkuh.com/rtlsdr.html
http://sdr.osmocom.org/trac/wiki/rtl-sdr
https://lab.dyne.org/RtlSdr
http://habrahabr.ru/post/149702/
http://sdrts.amoti.ru/instrukciya po us ... sdrsharp

zadig – driver for Windows

http://sourceforge.net/projects/libwdi/files/zadig/

Mac

http://eliasoenal.com/2012/09/30/osx-po ... -software/

Linux

http://www.rtl-sdr.com/improved-sdr-support-kali-linux/

Screening

http://sdrformariners.blogspot.co.nz/p/ ... noise.html

Converter

http://www.ebay.com/itm/Ham-It-Up-v1-0- ... 3525wt 786 http://qrz.od.ua/topic/80-konverter-vve ... converter/

The first social network radio sensors <a href="http://qrz.od.ua/topic/1533-svoi-sdr-server/">http://qrz.od.ua/topic/1533-svoi-sdr-server/</a>

#### Scanner

http://sourceforge.net/projects/rtlsdrs ... rce=navbar http://sourceforge.net/projects/rtlsdrscanner/files/ http://sdrts.amoti.ru/skaner poisk novyh chastot http://sourceforge.net/projects/rtlsdrs ... e/download

#### **GSM**

http://habrahabr.ru/post/200914/

http://dangerousprototypes.com/2013/10/ ... h-rtl-sdr/ http://hackaday.com/2013/10/22/cracking ... y-dollars/ http://www.rtl-sdr.com/rtl-sdr-tutorial ... wireshark/

Communication satellites, obtaining weather maps, etc.

http://www.rtl-sdr.com/tag/satellite-2/

http://www.heavens-above.com/PassSummar ... &showall=t

http://www.rtl-sdr.com/rtl-sdr-tutorial ... te-images/

http://sdrsharp.com/index.php/a-simple- ... ent-page-3

http://sdr.osmocom.org/trac/wiki/rtl-sdr

Program wxtoimg

http://www.wxtoimg.com/

Modulation and transmission format pictures with NOAA originally designed for the frequency shift during the flight the satellites . Expose strip detector at least 40kHz (better 50) and at a normal level signal get an excellent picture . And the main thing ! Bad practice to decode images from NOAA on the fly. Write (unless of course there is a possibility ) during migration to disk ( mean whistle and record IQ) the entire band (250 ... 2400KGts to choose from) and then offline , putting the right band detector and audio format ( 11025 ) - Drain the lf file for further processing. That's when there will be no curves etc. bands .

http://www.radioscanner.ru/info/article216/

## Alternative devices for different price

**EzTV 668** 

http://www.ebay.com/itm/EZCAP-EzTV-668- ... 1197902057

Hama USB DVB-T Empfänger "Nano" <a href="http://www.oe7.oevsv.at/opencms/referat">http://www.oe7.oevsv.at/opencms/referat</a> ... /RTL2832U/

AFEDRI SDR-Net receiver is built on the architecture of the direct signal samples or if you use English terminology direct sampling Software Defined Receiver - SDR \$300

http://www.afedri-sdr.com/index.php/afe ... russian---

LW-MW-HF-VHF-UHF USB SDR FUNcube Dongle Pro+

8990 rub

http://radioarena.ru/page 7.html

\$120

http://janielectronics.com/index.php?ro ... duct id=94.

MSi3101 от Mirics

50 English pounds

http://www.mirics.com/mlogin.php

http://www.mirics.com/sites/default/fil ... 01 new.pdf

**USRP** 

http://www.ni.com/usrp/esa/

Voice

http://www.rtl-sdr.com/improved-digital ... oding-dsd/

**QPSK** 

http://www.ite.com.tw/en/products\_more. ... 6&ID=15,62

http://www.radioscanner.ru/forum/topic45014.html

ADS-B

https://github.com/bistromath/gr-air-modes

https://www.cgran.org/wiki/gr-air-modes

http://sdrsharp.com/index.php/a-simple- ... ng-rtl-sdr

ReBeat

http://forum.adsbradar.ru/f39/sdr-rtl-1034/index31.html post 305 and next

http://www.radioscanner.ru/forum/topic45014-91.html

DAB

http://www.sdr-j.tk/index.html

DSD+

http://www.rtl-sdr.com/improved-digital ... oding-dsd/

#### **HackRF**

http://www.kickstarter.com/projects/mos ... r-platform

http://greatscottgadgets.com/hackrf/

https://github.com/mossmann/hackrf/wiki

http://www.securitylab.ru/analytics/447414.php

http://www.securitylab.ru/analytics/448222.php

http://gnuradio.org/redmine/projects/gn ... repository

#### **GNUnet**

https://gnunet.org/gnunet0-10-0

#### Android

http://dxing.ru/forum.html?func=view&ca ... 8&start=16

http://eartoearoak.com/software/rtlsdr-scanner

SDR-Touch

http://www.radioscanner.ru/files/downlo ... rtouch.zip

http://www.radioscanner.ru/files/pocketpc/file15227/

http://forum.xda-developers.com/showthr ... p=36930621

http://sdr.martinmarinov.info/download.php

http://4pda.ru/forum/index.php?showtopic=464036

TP-Link
AlexKing on openwrt
<a href="http://www.radioscanner.ru/forum/topic4">http://www.radioscanner.ru/forum/topic4</a> ... #msg976535
OpenWRT (TP-Link) have sdr-rtl.

TVSharp <a href="http://yadi.sk/d/4CeEvles3AXzz">http://yadi.sk/d/4CeEvles3AXzz</a>

TV transmitted through military satellite 255.550, NFM, Полоса 4500, Order 600, программа MMSSTV <a href="http://www.radioscanner.ru/forum/topic15762-5.html">http://www.radioscanner.ru/forum/topic15762-5.html</a>

Antenna (I have two patent decisions that have not yet patented) <a href="http://air-radiorama.blogspot.ru/2013/0">http://air-radiorama.blogspot.ru/2013/0</a> ... irale.html

Passive radar

http://www.rtl-sdr.com/passive-radar-du ... l-rtl-sdr/ http://asp.eurasipjournals.com/content/ ... 497074.pdf

Spectrum

http://napan.ca/ghpsdr3/index.php/Main Page

Oscilloscope

On the Internet there is an article about remaking dongle on HF. Meaning rework - disable input from the tuner and RTL2832 to output. This input can be used as an oscilloscope. Only soft one has posted. Theoretically, you can do dual channel up to 1.5 MHz. If there was infa Registers RTL2832, and possibly up to 15 MHz can endure.

Identification signals <a href="http://www.rtl-sdr.com/signal-identification-guide/">http://www.rtl-sdr.com/signal-identification-guide/</a>

Adapter for antenna MCX to RF

25ft USB 2.0 High Speed A Male to A Female Extension Cable Cord 480MBps <a href="http://www.ebay.com/itm/320985076761?">http://www.ebay.com/itm/320985076761?</a> <a href="mailto:ssPageName=STRK:MEWNX:IT&trksid=p3984.m1497.l2649">ssPageName=STRK:MEWNX:IT&trksid=p3984.m1497.l2649</a>

## RTL2832U supporting:

FM, DAB(+), TETRA (~430 MHz), GMR, APCO P.25 and satellite signals Turayya (~1550 MHz), AIS, ADS-B, ACARS, ATIS 122,45 pl-660 (for fly VirtualRadar, PlanePlotter), WFM, NFM, AM, GSM, GPS, DECT, RDS, NOAA, NOAA19, <a href="http://swisscube.epfl.ch/">http://swisscube.epfl.ch/</a>, NMT450, <a href="http://statelearner.ru/forum/topic21544.html">http://swisscube.epfl.ch/</a>, NMT450, <a href="http://statelearner.ru/forum/topic21544.html">http://statelearner.ru/forum/topic21544.html</a>), 1 TBK, 3TBK, 6 TBK, 8 TBK, 11 TBK, +

66,890 MHz and 68,630 MHz, Taxi on 27 MHz, CW 437.250 MHz satellite Fitsat-1 capacity 100 mw (<a href="http://www.fit.ac.jp/~tanaka/fitsat.shtml">http://www.fit.ac.jp/~tanaka/fitsat.shtml</a>), PhoneSat (<a href="http://www.nasa.gov/directorates/spacet">http://www.nasa.gov/directorates/spacet</a> ... nesat.html, <a href="http://www.radioscanner.ru/forum/topic2">http://www.radioscanner.ru/forum/topic2</a> ... <a href="http://rghost.ru/45401050">st/177903/</a>), beacon/APRS ISS (145.825, <a href="http://rghost.ru/45401050">http://rghost.ru/45401050</a>)

# Intel® Edison Development Board The SD\* card-sized computer for IoT

http://www.intel.com/content/www/us/en/do-it-yourself/edison.html

http://habrahabr.ru/post/208332/

http://mimobaby.com/mimo/

http://newsroom.intel.com/community/intel\_newsroom/blog/2014/01/06/intel-ceo-unveils-products-initiatives-and-collaborations-for-more-immersive-intuitive-experiences-and-increased-device-security

## **Different SmartHome Project:**

Tech-Home Solutions – nice web interface.

 $\underline{http://tech-homesolutions.com/installations/22-zone-home-automation-with-3d-floorplan-control-keypads/}$ 

X13.Home – most advanced Open-Source-Automation RF system with Visual programming language(Logram) and open protocols MQTT and MQTTS.

But not have Web-interface.

http://x13home.github.io/index en.html

http://comparator.selfhost.bz/

#### **STANTOR**

http://stantor.free.fr/capture\_ecran\_EN.html

majordomo – many modules support and control by Skype

http://majordomohome.com/Main/Modules

rus <a href="http://smartliving.ru/">http://smartliving.ru/</a>

http://habrahabr.ru/company/isystems/blog/206694/

#### **KNXweb**

http://sourceforge.net/projects/linknx/

http://linknx.sourceforge.net/

Protocol

http://sourceforge.net/apps/mediawiki/linknx/index.php?title=Interacting\_with\_Linknx

Forum

http://knx-user-forum.de/knx-eib-forum/

Lib <u>GNU pth</u> is a user mode multi threading library. pthsem is a fork, with support for semaphores added.

https://www.auto.tuwien.ac.at/~mkoegler/index.php/pth

Eibd

http://www.auto.tuwien.ac.at/~mkoegler/index.php/eibd

http://www.auto.tuwien.ac.at/~mkoegler/index.php/eibdriver

BCU SDK is a C based, high level development system for creating programs for EIB/KNX BCU devices. It includes the GNU toolchain for the m68hc05 architecture (m68hc05-gcc, m68hc05-gdb, newlib). Bus access is possible using multiple methods.

http://sourceforge.net/p/bcusdk/wiki/Home/

Installation

http://sourceforge.net/apps/mediawiki/linknx/index.php?title=Install\_Eibd/Linknx/knxweb

Setup

http://localhost/knxweb2/setup.php

Information

http://sourceforge.net/apps/mediawiki/linknx/index.php?title=KnxWeb

openhab

https://github.com/openhab

freedomotic

http://code.google.com/p/freedomotic/

zvirtualscenes

http://code.google.com/p/zvirtualscenes/

Open-Source-Automation

http://www.opensourceautomation.com/

pytomatio – Django platform that I know <a href="https://github.com/zonyl/pytomation">https://github.com/zonyl/pytomation</a>

webmote – Android simple

https://github.com/dandroid88/webmote

**HAMS** 

http://32leav.es/

etc ...

## **Design your home**

3D Home

http://ru.homestyler.com/designer

https://planner5d.com/

Google Sketchup – 3D model

www.roomle.com

MagicPlan

http://www.sensopia.com/english/index.html

### **Protocols**

http://docs.fibaro.com/?page\_id=1740

http://sourceforge.net/projects/linknx/

http://forge.fi-ware.eu/plugins/mediawiki/wiki/fiware/index.php/Publish/Subscribe Broker - Orion Context Broker - User and Programmers Guide

http://www.calaos.fr/wiki/protocole tcp

http://www.calaos.fr/wiki/protocole\_ison

http://smartliving.ru/Main/ProgramminIntegration

#### Open source home automation system MRF49XA - 800-900 MHz

- MQTT Broker: Implements variables newsletter subscribers
- **MQTT Client:** Connects to the upstream broker
- PLC: Implements control logic

#### Modules:

- **Persistent Storage:** data base SQL-Lite or mySQL servers
- MQTT-S Aggregated Gateway: To translate between protocols MQTT-S and MQTT
- **XBee Gateway:** Serves customers based XBee (ZigBee) modules
- Other plug-ins, such as KNX and Z-Wave (not included in the open source version)

## Tiny MQTT Broker with TP-Link OpenWRT

http://webworxshop.com/2012/11/03/tiny-mqtt-broker-with-openwrt

#### x13home

http://x13home.github.io/index en.html

http://smartliving.ru/forum/viewtopic.php?f=8&t=601

http://smartliving.ru/forum/viewtopic.php?f=8&t=601&start=30

https://github.com/X13home

http://x13home.github.com/www/Download/X13.Home.zip

http://www.ab-log.ru/forum/viewtopic.php?f=1&t=383

#### M2M (ZeroMQ, MQTT or AMQP)

MQTT(s) subscribe/publish <a href="http://mosquitto.org/">http://mosquitto.org/</a>

https://github.com/tobyjaffey

https://github.com/bluerhinos/phpMQTT

https://github.com/sskaje/mqtt

http://www.ab-log.ru/forum/viewtopic.php?f=1&t=383&start=640#p10695

WonderBox - MQTT

http://www.ab-log.ru/forum/viewtopic.php?f=1&t=519&start=20

Pub/Sub

http://jpmens.net/2013/02/25/lots-of-messages-mqtt-pub-sub-and-the-mosquitto-broker/Arduino

http://knolleary.net/arduino-client-for-mqtt/

https://github.com/knolleary/pubsubclient/blob/master/PubSubClient/PubSubClient.cpp

#### **KNXweb**

http://sourceforge.net/projects/linknx/

### TCP - Microchip

TCPIP WebVend App, <a href="http://habrahabr.ru/post/138081/">http://habrahabr.ru/post/138081/</a>
TCP/IP — Tibbo (RS232 over Ethernet)
<a href="http://habrahabr.ru/company/scancode/blog/206920/">http://habrahabr.ru/company/scancode/blog/206920/</a>

#### **HardWare Protocols**

CC1101 and MRF49XA not work together
CC1100 and SX1231 work
RFM12 with CC1100 in 2-FSK mode
CC1101 network need GFSK
RFM12 and SX1231 from Semtech work
mc13224v 6LowPAN module <a href="http://www.redwirellc.com/store/node/6">http://www.redwirellc.com/store/node/6</a>

#### **Mesh Protocols**

SimpliciTI <a href="http://www.ti.com/corp/docs/landing/simpliciTI/">http://www.ti.com/corp/docs/landing/simpliciTI/</a>
<a href="http://tinyos.stanford.edu/tinyos-wiki/index.php/Platform">http://tinyos.stanford.edu/tinyos-wiki/index.php/Platform</a> Hardware
<a href="http://www.contiki-os.org/hardware.html">http://www.contiki-os.org/hardware.html</a>
flesh from 128 Kb and from 4 Kb RAM

Feedback The Radio Channel 433 MHz <a href="http://imall.iteadstudio.com/smart-home/switch/im121218019.html">http://imall.iteadstudio.com/smart-home/switch/im121218019.html</a> <a href="http://imall.iteadstudio.com/im120628014.html">http://imall.iteadstudio.com/im120628014.html</a>

## **Devices**

Tools for control e/m frequency and channels DVB-T R820 and program SDR# <a href="http://www.ebay.com/itm/New-FM-DAB-USB-DVB-T-RTL2832U-R820-TRTL-SDR-Receiver-TV-TunerMCX-Input-/190872093909">http://www.radioscanner.ru/forum/topic45014-42.html#msg927543</a> <a href="http://www.radioscanner.ru/forum/topic45014-46.html#msg929244">http://www.radioscanner.ru/forum/topic45014-46.html#msg929244</a>

UG802 - Android Cortex A9 - Make ftom TV - SmartTV - \$ 43.30

http://dx.com/p/ug802-android-4-0-dual-core-network-multi-media-player-w-wi-fi-hdmi-tf-black-

#### 1gb-ram-4gb-153223

Arduino library to operate low cost 315 MHz / 433 MHz remote control devices <a href="http://code.google.com/p/rc-switch/">http://code.google.com/p/rc-switch/</a>

Speech commands by Microsoft recognition <a href="http://jordanburgess.com/post/38986434391/raspberry-pi-airplay">http://jordanburgess.com/post/38986434391/raspberry-pi-airplay</a>

## **TP-Link (Alternative firmfare)**

http://smartliving.ru/Main.TPLinkHub

http://madox.googlecode.com/files/tl-wr703n standard 2012-10-04.7z

http://www.madox.net/blog/projects/tp-link-tl-wr703n/

Circuit Diagram & Files (for V1)

http://www.kean.com.au/oshw/WR703N/

http://smartliving.ru/Main/DlinkHub

3D printer case model

http://www.thingiverse.com/thing:25257

Arduino USB problem

https://forum.openwrt.org/viewtopic.php?id=39956

HW hack

https://forum.openwrt.org/viewtopic.php?id=34188.

Patch

https://github.com/SLboat/Openwrt 12.09 r36088-USB11 RESET PATCH/

firmware

http://pan.baidu.com/s/1CI2UZ

Patch on forum

https://forum.openwrt.org/viewtopic.php?pid=220117#p220117

Install on OpenWRT

http://smartliving.ru/forum/viewtopic.php?f=4&t=1061

http://smartliving.ru/forum/viewtopic.php?t=1061&p=8365#p8365

Lot of Information about TP-Link

http://www.cyber-place.ru/forumdisplay.php?f=38

http://cyber-place.ru/showthread.php?t=343

Cross compilation OpenWRT on Ubuntu.

http://cyber-place.ru/showthread.php?t=512

Cross compilation OpenWRT on Debian.

http://rascal.su/blog/2010/11/06/%D1%81%D0%BE

%D0%B1%D0%B8%D1%80%D0%B0%D0%B5%D0%BC-openwrt-%D0%B8%D0%B7-

%D1%82%D1%80%D0%B0%D0%BD%D0%BA%D0%B0/

Repository

http://downloads.openwrt.org/attitude adjustment/12.09/ar71xx/generic/packages/

Format USB

http://redacacia.me/2013/04/08/openwrt-usb-external-storage-with-rootfs-swap/

WiFi setings

http://wiki.openwrt.org/doc/faq/faq.wireless

Messages

http://jpmens.net/2013/02/25/lots-of-messages-mqtt-pub-sub-and-the-mosquitto-broker/

Test

http://test.mosquitto.org/

https://lists.launchpad.net/mosquitto-devel/msg00371.html

Patch for LuCI

http://luci.subsignal.org/trac/attachment/ticket/435/0001-Basic-LuCI-app-for-Mosquitto-service-

configuration.patch

**Payload** 

http://false.ekta.is/2011/08/binary-payloads-with-mosquitto-v0-12-and-later-in-python/

Date

rdate -s ptbtime1.ptb.de

http://wiki.openwrt.org/doc/howto/ntp.client

## **MJD** (Debian)

http://smartliving.ru/Main.Basics

If it is ready device that enough to stick in the slot and it itself will sew and start working (and even more so if this device can be purchased), I think it is a very big plus.

http://smartliving.ru/forum/viewtopic.php?f=3&t=424

Config for start <a href="http://localhost/popup/first\_start.html">http://localhost/popup/first\_start.html</a>

MJD HTTP GET interfacing protocol

http://smartliving.ru/Main/ProgramminIntegration

MJD settings

http://smartliving.ru/forum/viewtopic.php?f=6&t=405&p=2125&hilit=Big+Brother#p2125

Android Application MJD

https://play.google.com/store/apps/details?id=ru.galakart.majordroid

MajorDroid

https://github.com/Galakart/MajorDroid

Weather

https://play.google.com/store/apps/details?id=com.opensignal.weathersignal&hl=ru

Run script from mobail on PC

https://play.google.com/store/apps/details?id=com.joaomgcd.autoremote&hl=en

Windows X10 remote

http://www.eventghost.org/

Controller Android by voice

https://play.google.com/store/apps/details?id=com.joaomgcd.autovoice&hl=en

1-Wire to Ethernet Server

http://www.embeddeddatasystems.com/OW-SERVER-1-Wire-to-Ethernet-Server-Revision-

2 p 152.html

**OWFS** for Raspberry

http://wiki.temperatur.nu/index.php/OWFS with i2c support on Raspberry Pi

%28English version%29

http://smartliving.ru/forum/viewtopic.php?f=8&t=46&start=50#p5162

IP ATC Asterisk VoIP

http://smartliving.ru/forum/viewtopic.php?p=8192#p8192

Settings for MJD Menu

http://smartliving.ru/forum/viewtopic.php?f=4&t=582&p=4168&hilit=On%2FOff+Switch#p4168

#### **Hardware MJD**

http://smartliving.ru/Main.Hardware

Arduino web server + Virtual wire (TX, RX modules 433,99 MHz)

http://smartliving.ru/forum/viewtopic.php?f=8&t=654

http://smartliving.ru/Main/ArduinoVirtualWire

http://startingelectronics.com/tutorials/arduino/ethernet-shield-web-server-tutorial/

http://smartliving.ru/Main/Arduino

webserver EthernetShield W5100 and enc28j60

http://smartliving.ru/forum/viewtopic.php?f=4&t=257

https://github.com/sochkasov/majordomo-arduino

https://github.com/sergiomokshin/Arduino-WebServer

Arduino - RF

http://smartliving.ru/Main/ArduinoVirtualWire

http://playground.arduino.cc/Interfacing/LinuxTTY

http://www.ebay.com/itm/301041414713

https://www.spark.io/

http://smartliving.ru/Main/ArduinoSecurity

http://oko-gsm.deal.by/p275972-oko.html

http://www.ebay.com/itm/1pcs-433Mhz-RF-transmitter-and-receiver-kit-Arduino-

project-/261041100836?pt=LH DefaultDomain 0&hash=item3cc7431824

While I can not get a signal from them from noolite

http://www.youtube.com/watch?v=27g8SthmBsI

#### Sound

http://www.ebay.com/itm/400520413916?

ssPageName=STRK:MEWNX:IT& trksid=p3984.m1497.l2649

http://smartliving.ru/forum/viewtopic.php?f=6&t=635

Text To Spitch

http://festlang.berlios.de/docu/doku.php?id=russianru

http://ab-log.ru/smart-house/speech

Voice classification commad on Ardwino

http://compcar.ru/forum/showthread.php?t=8016

Speech commands by microsoft recognition

http://jordanburgess.com/post/38986434391/raspberry-pi-airplay

http://pccar.ru/showthread.php?t=18233

https://github.com/Rai220/SpeechCommands

http://www.pccar.ru/showthread.php?t=19766

http://www.pccar.ru/forumdisplay.php?f=121

http://www.youtube.com/user/Rai220/videos

**Open-Sound Controller** 

http://habrahabr.ru/post/149838/

Alice

http://smartliving.ru/forum/viewtopic.php?f=4&t=432

http://smartliving.ru/forum/viewtopic.php?f=4&t=458 http://smartliving.ru/forum/viewtopic.php?f=6&t=290

#### Chat Bot for controller house

LG – Line

http://www.lgnewsroom.com/newsroom/contents/64064

Majordomo - Skype

http://habrahabr.ru/post/160067/

http://smartliving.ru/forum/viewtopic.php?f=4&t=690

Controller of Gate

http://forum.cxem.net/index.php?showtopic=107369

Rele

http://yadi.sk/d/JIb9jSr92iPPx

http://smartliving.ru/forum/viewtopic.php?f=8&t=562

http://www.aliexpress.com/item/New-5V-8-Channel-Relay-Module-Board-for-Arduino-PIC-AVR-

MCU-DSP-ARM-Electronic-11121/663483123.html

#### IR driver

http://dvrobot.ru/shop/i109.datchik priema ik.htm

http://dvrobot.ru/shop/i178.ik-\_peredatchik.htm

http://smartliving.ru/forum/viewtopic.php?f=8&t=304

http://dangerousprototypes.com/docs/USB IR Toy v2

http://github.com/Sicness/SmartHome/blob/ed18e0dff2746f98a8bf729204971cf3ebc6420d/smart.pv

#### CO2 – climate controll

http://habrahabr.ru/post/187210/

http://habrahabr.ru/post/205076/

Mercuriy 200 - electricity consumption

http://incotex-counter.blogspot.com.es/2011/06/200.html

Mercury 230

http://ilja10.narod.ru/files/merc230 v217.DOC

#### Turn ON computer:

http://smartliving.ru/forum/viewtopic.php?f=4&t=572

Anti Fire

http://www.tinko.ru/p-216904.html

http://www.bars7.ru/

http://www.sapsangsm.com/index.php?productID=1528

Map of ideas of smart home

http://mind42.com/mindmap/a83fba6c-dd6e-470f-96d3-3dca31f56af1

http://smartliving.ru/forum/viewtopic.php?f=6&t=1328

http://narodmon.ru/

#### **Temperature**

http://www.masterkit.ru/main/set.php?code\_id=565375

#### http://connect.smartliving.ru/components.html

Lamp

http://store.apple.com/de/product/HA779ZM/A/philips-hue-connected-bulb-%E2%80%93-startpaket

Boiler and wiring diagram <a href="http://www.rinnai-russia.ru/?view=catalog&id\_prod=1">http://www.rinnai-russia.ru/?view=catalog&id\_prod=1</a>
<a href="http://www.benuks.ru/walpers/sh">http://www.benuks.ru/walpers/sh</a> io 1.jpg

Web client Buttons over Picture

http://static.buildinternet.com/live-tutorials/interactive-picture/index.html http://webformyself.com/sozdaem-interaktivnuyu-kartinku-s-pomoshhyu-jquery/

Request PCB

 $\underline{http://imall.iteadstudio.com/open-pcb/pcb-prototyping/prototype-pcb-assembled-pcba-upfront-consulting-service.html}$ 

STM32 and USB-HID <a href="http://habrahabr.ru/post/208026/">http://habrahabr.ru/post/208026/</a>