IR REMOTE AS PC INPUT

by: Mike Szczys

13 Comments

August 20, 2012

As a learning experience [GeriBoss] put together an IR remote control receiver board for his PC. His want of volume control from across the room was reason enough to undertake the project, and he got to work with a 38 kHz receiver module and Manchester encoding in the process.

The decoder portion of the project is built around an ATtiny2313 chip. The external interrupt pin (INT0) is connected to a TSOP31238. When it decodes a valid remote code it pushes a character to the RS232 chip connecting to the computer's serial port.

We think this is a wonderful accomplishment for [GeriBoss], but we encourage him to refine the design further. You'll notice in the image there's a USB port on the board which is only used to provide regulated power. We know it's possible to use V-USB with the ATtiny2313 to add USB functionality and this would be a great way to learn about it. We'd also like to mention the resistor and capacitor suggested for filtering the IR receiver module signal. We've included the recommended application schematic for that part after the break.

Posted in Microcontrollers
Tagged attiny2313, ir receiver, manchester encoding, remote control, rs232

← CMOS logic clock tracks 24-hour time

Toorcamp: The Tesla Gun →

13 THOUGHTS ON “IR REMOTE AS PC INPUT”

Jose says:
August 20, 2012 at 5:34 pm

Wow. Isn’t this “hack”-a-day? Who are you guys, his mom?

It’s kind of ridiculous (and insulting) to show off someone else’s project and then “finish” it for him.

Reply Report comment

Akoi Meexx says:
August 20, 2012 at 6:51 pm

But it’s ok for commentators to make suggestions? Seems like a double-sided standard. I for one would welcome any constructive input for improvement of projects I publish.

But back to the post itself: definitely slick, though I’d want to see USB functionality as well. I suspect the phrase “If it ain’t broke, don’t fix it” is going to apply here. Still, it’d be nice to see it implemented.

Reply Report comment

SWHarden says:
August 21, 2012 at 5:34 am

I agree. Stop being moms.

If it were elegant, it wouldn’t be a HACK.

It’s hacked, and it works – mission accomplished.

SEARCH

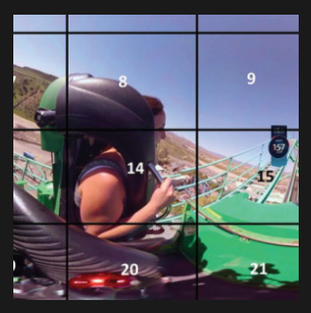
Search … SEARCH

NEVER MISS A HACK

SUBSCRIBE

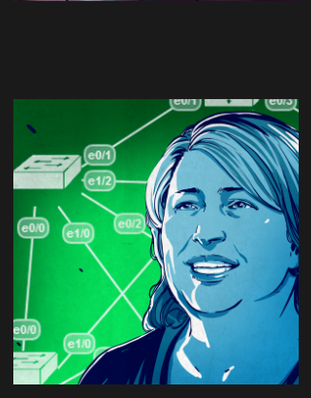
Enter Email Address SUBSCRIBE

IF YOU MISSED IT



360 LIVE VR TELEPORTATION USES DRONES, NEURAL NETWORKS, AND PERSEVERANCE

4 Comments



SPANNING THE TREE : DR RADIA PERLMAN & UNTANGLING NETWORKS

21 Comments

SMART PLUGS DON’T SAVE YOU ENERGY, BUT DON’T CONSUME MUCH EITHER

46 Comments

STRETCHING MY SKILLS: HOW (AND WHY) I MADE MY OWN COMPRESSION SLEEVES

59 Comments

Reply Report comment

Tarantulas says:
August 20, 2012 at 6:55 pm

FLIRC... yeah.

Reply Report comment

dave says:
August 20, 2012 at 7:52 pm

Um, LIRC.

Reply Report comment

Gorloth says:
August 20, 2012 at 9:13 pm

I've been using LIRC (Linux IR remote control) for years on my laptop works great, ironically I've found the windows port of LIRC to work much better for setting a system up, it would figure out the encoding and present the codes as a binary string, as opposed to leaving it as a bunch of high/low timmings

Reply Report comment

gaigelama says:
August 20, 2012 at 7:58 pm

Interesting enough I was wanting to embed an IR remote into my computer so I can have control of my stereo and tv. I was planning to make shortcuts of each script to load (e.g. vol up) and macro it to my G510. I was just hoping to find a usb ir transmitter, but all there is a usb ir transceiver for around $50. So I'm using my old psphat atm.

Reply Report comment

fartface says:
August 21, 2012 at 3:34 am

NO, you can get an IR receiver and transmitter setup for $25.00 Look for the Microsoft Windows Media center remote and receiver. the old out of date one will also transmit IR to two devices as well.

Reply Report comment

crashsuit says:
August 21, 2012 at 9:33 am

It's not really in the spirit of hackaday.com, but you can pick up these little USB IR PC remotes off eBay for under 6 bucks shipped.

http://www.ebay.com/sch/i.html?_sacat=0&_nkw=usb%20infrared%20remote&_sop=15

I got one a while back, they work OK for volume, launching and controlling multiple apps, etc.

Reply Report comment

HACKING WHEN IT COUNTS: THE PIONEER MISSIONS

16 Comments

More from this category

CATEGORIES

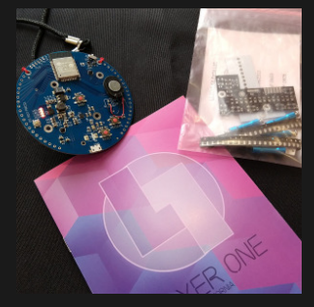
OUR COLUMNS

VCF EAST: THE MAIL ORDER APP STORE

8 Comments

FRIDAY HACK CHAT: LOGIC NOISE

1 Comment

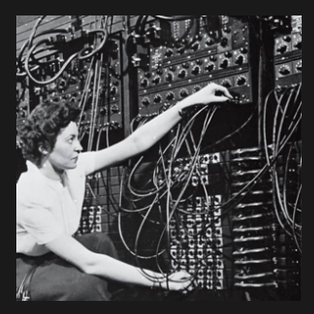


BADGE BLING AND MORE AT LAYERONE 2018

4 Comments

BIASING THAT TRANSISTOR: THE EMITTER FOLLOWER

28 Comments



VCF EAST: THE DESKTOP ENIAC

23 Comments

More from this category

RECENT COMMENTS

j on Cheap Stuff To Hack: A Router With An SDR For $13

Genki on Convert A Kerbside CRT TV Into An Arcade Monitor

NiHaoMike on The Tantillus, Reborn

Adam on The Tantillus, Reborn

wernicke on Cheap Stuff To Hack: A Router

Hephaix says:
August 20, 2012 at 11:13 pm

I did something close with an arduino, an IR receiver and an ethernet shield. The received IR signal is send via UDP on a specifed port on my PC. It is then received by a client writen in C. The client perform actions accordingly to a xml configuration file.
Actions available are any combination of the folowings:
send a key press event to the system keyboard buffer,
send a key release to the same buffer,
launch a program with any argument
wait for XXX ms (to wait for the complet start of a program)

PS: I am aware that this is a huge security hole...

Reply Report comment

jc says:
August 20, 2012 at 11:42 pm

AFAIK pc serial ports either already have irda modems that can be enabled in bios (and then you can just use emitter/detector diodes) or you can just stick one of those irda modulators/demodulators in there.

Reply Report comment

GeriBoss says:
August 21, 2012 at 1:53 am

Of course I gave up on V-USB, I tried for weeks without success. Windows (7, x64) detected it but I couldn't establish a data link... So the problem was on the PC side, not the firmware.

In my opinion building this from scratch was much more satisfying than using (Win)LIRC or similar.

I'll probably use an FTDI chip next time, less hassle.

Anyway, thanks for the feedback and suggestions everyone!

Reply Report comment

g says:
August 21, 2012 at 2:12 am

We'd also like to mention the resistor and capacitor suggested for filtering the IR receiver module signal. We've included the recommended application schematic for that part after the break.

You could as well have looked at it then, you know. Or read the text.

Reply Report comment

Leave a Reply

With An SDR For $13

Ostracus on VCF East: The Mail Order App Store

Ostracus on The Tantillus, Reborn

Tane on Convert A Kerbside CRT TV Into An Arcade Monitor

TheDone on VCF East: The Mail Order App Store

Rick on Spellcasting Gun Uses POV Display, Not Magic

NOW ON HACKADAY.IO

K7WXW wrote a comment on instructions for Raspberry Pi GPS Stratum 1 NTP server.

Adam Vadala-Roth has added details to Omni Mic.

Stephen Tranovich wrote a reply on The 2018 Hackaday Prize.

Eric Link has added a new log for 3D Scanning utilizing Photogrammetry.

Blaine Murphy has updated the project titled Push to Reboot.

Blaine Murphy has updated the project titled NETCON Indicator.

Ilyas Akhmetzyanov has updated details to Rhoby.The Social Robot..

Simon Merrett liked Servo Generator Light.

bottomgun liked Compact, $25 spectrometer.

Good-bye,
audible noise

Hello,
efficiency and
low standby
power

Texas Instruments

Good-bye,
audible noise

Hello,
efficiency and
low standby
power

Texas Instruments

HOME
BLOG
HACKADAY.IO
STORE
HACKADAY PRIZE
VIDEO
SUBMIT A TIP
ABOUT
CONTACT US

NEVER MISS A HACK

SUBSCRIBE TO NEWSLETTER

Enter Email Address SUBSCRIBE