That would be active jammer against human radar, which cause all synthetic disease, pain, made by another frequency operate on much bigger band, microwave. You can describe that as laser which is in the hand of Navy Seal operator on the ground, marking target, and in the same time, fighters above drops, smart bomb on target, efficient is from 90% >.

I first invest in passive shielding, and this days still combine passive shielding and active jammer based on SDR device HackRF One Card, and also have LimeSDR USB, card, and both of them are Chinese clones, because Lime but also HackRF are product from crowd funding campaigns, but HackRF are still exist, Lime are gone for years, and Lime was chipper version of URP device, which are much expensive. Biggest differences between HackRF and Lime is that hackRF one is 12bit card, uses old 2.0 v USB, which is slower comparing with Lime 3.0 USB, hackrf can do 20MS/s with 28MHz bandwidth, and Lime can do 60MS/s per TX channel (has two of them) with 120MHz bandwidth. You notice that bandwidth, it is actually area of some band that one card can cover, so 120MHz is better that 28MHz, but that again, you only need to cover HF band, or 0-30MHz. In focusing on jamming that „Navy Seal" operator on the ground who actually marking my body, WHOLE fucking day, never mind, if I'm on the street or back home in my flat. We will not cover here Microwave, which operate on bigger band, and thy are not of much importance for me. As human if we are targeted with microwaves, which operates on that bigger band, we will be dead already, much bigger frequency means bigger dissipation of energy, so it's very simple practice example. If you enter into big electronic store with radio devices, they operate on FM band, if you pass true the shells with radio devices, they will all start to make that nice sound of jamming, you know we have big station operate on 88.10 MHz back home, and if I turn on jammer, they will made the same sound when you passing shells with radio devices, and „Navy Seal" operator is whole day behind you marking your body with logarithmic antenna or some other direct antenna.
So I made jammer based on HackRF One SDR radio, at home it's power with some old PC based on AMD CPU from 2013, and for outside I'm using Raspberry PI 3b+, which can compute more for 10-15% than old AMD CPU PC machine. When is connected with power jack (not on battery). Sure TX gain that you will get with Hack RF and/or Lime is not enough for that, you will need to amplify signal, think that Hack RF and Lime can't give you gain more that 13-15Dbm between 0-30MHz or HF band that we need to jam, so you need amplifier, and I do a lots of searching around the net, but first I like to pint out, you will need much bigger amplifier for home, house or flat, comparing to amplifier for outside, and that all can fit in one backpack. I plan to made this as technical tutorial.

I'm good at linux on admin level, and good PC technician, also because people who fucks me all day 24/7 knows what I'm doing, and they know that I will finally get them with that, they just sabotage everything, so basically I couldn't find electrician guy in city with 800k inhabitants, why because when I start to play with amplifiers, and this is devices that are pretty simple, with few electronic elements, and operate basically with lower input power at the end or output MA port they will produce 10, 20,30 time more power than on input, so all amplifiers have one and only issue, great heat dissipation, means the will fry like pop corn, and until now I fried more than 10 of them, so when someone sabotage you, I start to play with soldering, and I learn how to fix that 45W amplifier on my own, and also can build YID kit on my own.
Shortly, if you manage to control heat, amplifier will work better and long life, also if you have amplifier with greater output power, more than 45W, you can't travel with that in backpack, also you don't need that outside, because that stupidity that this folks do is to announce you where ever you go, in the bar, library, at job, and if someone smiles at you,

you will feel pain, great disorder in the head, angry and son on, it's all arranged, but if you have active jammer, there is no purpose for announcing, no matter where do you go, you can have just amplifier from 1W, I'm using right now amplifier that I will show later from 45W, just because I fried that smaller amplifiers from 1W or 2W.

For PC or raspberry pi, I'm using Linux, sorry Linux will be covered here only. Presume that most of you will use Ubuntu or rasbian pi, I'm using arch Linux, main difference is that they are using different commands for installing something, but also arch Linux has great tutorial, and don't have all necessary packages that Ubuntu have with default installation, equals lower hardware drains.

I will not cover Arch installation here, more arch Linux pi for raspberry.
Instructions presume that you already have some installation of Linux, and that you have SD reader card on your laptop, although more that you will have that by default on older laptops. When you put SD card inside, sorry micro SD in Card adapter, you need to find out first name of your micro SD device.

Sudo fdisk -l

and you will looking something like this `mmcblk0`

No matter if you have new or old micro SD card, first you need to delete MBR records from beginning of the card

```
sudo dd if=/dev/zero of=/dev/mmcblk0 bs=512 count=1
```

Although in manual they will recommend using specially image for raspberry pi 2, I install also specially 64bit made just for raspebrry pi 3b+, but they say that is not full covered with support.

After that please follow this manual but if you want to install 64bit version use this

```
wget http://os.archlinuxarm.org/os/ArchLinuxARM-rpi-aarch64-latest.tar.gz
```

After installation you can put micro SD card into raspberry, and you can boot system without monitor, and you can connect true terminal with ssh

`ssh alarm@ipaddress` that router attach for arch pi

you can look on router which all have web interface, what he dedicate for arch pi, because arch pi have dhcpcd client enabled by default, but you can always found out IP address with command `sudo rap -a -i` hardware device that you will scan, usually eth0

you need to install only this packages to arch pi, to be able to run gnu radio python script with hacker or Limescale, I list mine packages with command `pacman -Qe`

```
archlinuxarm-keyring 20140119-2
base 3-1
base-devel 1-1
```

cmake 3.27.5-1
dhcpcd 10.0.2-1
dialog 1:1.3_20230209-1
git 2.42.0-1
gnuradio 3.10.7.0-5
gnuradio-osmosdr 0.2.4-7
hackrf 2023.01.1-1
htop 3.2.2-1
limesuite 22.09.1-3
linux-rpi 6.1.53-1
mc 4.8.30-1
nano 7.2-1
net-tools 2.10-2
netctl 1.28-2
openssh 9.4p1-4
pkgfile 21-2
raspberrypi-bootloader 20230914-1
raspberrypi-firmware 20230914-1
soapyhackrf 0.3.4-1
sudo 1.9.14.p3-1
tmux 3.3_a-7
usbtop 1.0-1
usbutils 015-3
vi 1:070224-6
which 2.21-6
wireless-regdb 2023.09.01-1
wireless_tools 30.pre9-3
wpa_supplicant 2:2.10-8
yay 12.1.2-1

packages marked with Italic are installed specially by me, other you will get with installation, cmake is tool for compiling if you want to compile let say latest hackrf packages or SoapySDR, although you don't need that because you will get latest package with pacman installation `pacman -Sy hackrf`
`hackrf` is utilities made by hackrf team with Mosmman, for running python scripts, you also need *gnuradio 3.10.7.0-5*
gnuradio-osmosdr 0.2.4-7 soapyhackrf tmux is emulator on which you can open command true ssh session and command will not be terminated after you leave ssh session with shortcuts *yay* is package installer for third party software repository

Because you will not have monitor attached when you will have all that in backpack, you can only check some basics with mobile phone, if script is running, we will put script to auto boot when arch pi booting.

sudo nano /etc/systemd/network/wlan0.network and change file like this if it’s different

```
[Match]
Name=wlan0

[Network]
Description=On-board wireless NIC
DHCP=yes
```

or if you want to use static address

```
[Match]
Name=wlan0

[Network]
Description=On-board wireless NIC
Address=192.168.x.y
Gateway=192.168.x1.y1
DNS=192.168.x1.y1
```

with `ip addr s` you can check if you have more than one ip address attached to device wlan0 by your router or mobile phone hot spot, if you have means that also `dhcpcd` and service `systemd-networkd` are enable on boot by default, so you need to disable one of that service, but warning, if you disable wrong one, you will not have to attach back without monitor and keyboard attached on raspberry.

```
sudo systemctl disable dhcpcd
```

but check if you have systemd-networkd enabled

```
sudo systemctl | grep systemd-networkd
```

you need to have configured wpa_supplicant to connect arch pi to wlan router or mobile hotspot, and you need to put file in this path

`/etc/wpa_supplicant/wpa_supplicant-w*lan0*.conf` if you using wlan0 interface,and this is basic what you need to put inside

```
sudo nano etc/wpa_supplicant/wpa_supplicant-wlan0.conf

ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=wheel


network={
       ssid="name of SSID"
       psk="wpa key"
```

```
        scan_ssid=1
        key_mgmt=WPA-PSK
}
```

you can enable all interface to boot with `sudo systemctl enable systemd-networkd,` or just one of tham, wlan for example `sudo systemctl enable systemd-networkd@wlan0`

Now you need to put python script to start execute when arch pi starts, and again we will use systemctl service for that to start at boot time, another method would be execute script at boot time with cronie `@reboot` name of the command or script.

```
sudo nano /etc/systemd/system/name_of_the_service
```

you than need to place inside just path where is the script

```
Unit]
Description=Script

[Service]
ExecStart=/usr/bin/bash /home/your-account_name/name_of_the-script.sh

[Install]
WantedBy=multi-user.target
```

and after that

```
sudo systemctl enable /etc/systemd/system/name_of_the_service
```

And Finally you need to put python script that you made before with gnuradio-companion GUI version of gnuradio, and guess what will be using inside gnuradio-companion as major blocks, noise-source, and also you have option fast-noise-source, everything you put inside *“name_of_the-script.sh”,* will actually do jamming process. I’m using discone antenna and rod antenna back home, but inmportant thing, anetnna needs to be inside the house or flat, otherwise you can get penalty from FCC or some local country institution for same purpose.

Fast noise will do job better, because CPU will suffer less, and job will be done better, because they scanning you with human radar, from 2-3m tops away from you, luckily person which have house, and first neighbor is maybe 50m away from him can feel much better results than person who lives in flat, surrounded with 3-4 others apart mans, or person in flats need to buy bigger amplifier than 45W. Because I’m playing with jamming on daily basics, last 5-6 months, I know now, that for better peace I need around 2.4A current which passes from gate to drain on mosfets, input bias current fro gate need to be configure, when mosfet is not running, need to be around 33mA for per mosfets, and 45W

amplifiers has two of them, Manual and schematic from 45W amplifier suggest that board himself needs around 250mA, + 0.066, is around 0.3162 A in bias mode, When you start running script, that current jumps from 0.3162 to around 1.5-2.0A, depends what are you running gaussian or uniform, or both of them in the same time. That would be range from 2.4A to 3.4A. Now I now that I need around 2.5> A from two amplifier to actually jamming them.

All this amplifiers I bought personally, some of them work, and then died, some of them I couldn't start even from start

Amplifiers for outside/backpack

2W amplifier, I didn't bought that amplifier when I buy accumulator battery 12.6V, 15Ah, just for outside perpose
This amplifer work some time in my flat, and it's doing good job, it's linear amplifier, and jamming line when amp is on, can actually boost gain for around 33dBm, but didn't last very long, it have passiev cooler, but presume that you need to put bigger passive radiator

https://www.aliexpress.com/item/1005004055558726.html?spm=a2g0o.order_list.order_list_main.285.66ae1802us3Maj

4W amplifiers
I also have this one, still didn't use that in practise for longer period, what I know when I connect it on power supply aorund 18-19V, with regulated voltage and current from 0-120V and 0-5A,this power supply will not last for a lo ng time, because it's heat a lot, also another buyer publich comments that it's not recommend to put voltage more than 20V, and/or that you put bigger passiev radiator

https://www.aliexpress.com/item/1005004349939985.html?spm=a2g0o.order_list.order_list_main.74.21ef1802bGcr8w

For that amplifer you will need voltage booster, if you plan to supply ampliefer with more than 12.6V

https://www.aliexpress.com/item/1005001622004014.html?spm=a2g0o.order_list.order_list_main.62.21ef1802bGcr8w

Amplifiers for home

This is amplifier that I meet best, and on which I spend most of the time playing with amplifiers

45W amplifier both in DIY kit and alreydy buoild with passiev radiator, in DIY kit you will not get passiev radiator

Or this one, which is the same as build amplifier, if you chech closer DIY kit from above, you will se that it's some previous amplifer build number

https://www.aliexpress.com/item/1005002362165650.html?pdp_npi=3%40dis%21USD%21US%20%2419.11%21US%20%2413.76%21%21%21%21%21%402101ef68169211791066963 35efe50%21112000020317776876%21im%21%21

https://www.aliexpress.com/item/1005002222653277.html?spm=a2g0o.order_list.order_list_main.279.1dc41802h2qLgD

Step voltage down regulator, for outside, if you will buy battery accumulator Litium 18650, which is much better than lead batteries, they last longer and they are much lighter for carrying arround, 12.6V Lithium battery 15Ah, weight around 450g, same lead batteries around 5kg. Step down voltage regulator is needed if you will connect raspberry pi 3B+ operate on 5.1-5.2V, or amplifiers which uses 5V power supply

https://www.aliexpress.com/item/1005004983920053.html?spm=a2g0o.order_list.order_list_main.140.1dc41802h2qLgD

25W amplifiers

This would be almost pro amplifier with heat thermostat regulator, which starts active fan, mosfet inside is `this XRPA mosfet 841-MRFE6VS25NR1

600W
and last amplifer that I bought, still didn't test it, is this monster 600W, and this is serious gear. For that you need special active and passive radiator, and building installation is here, I manage to fry 300BN mosfets, and still can't regulate bias current, so I'm waiting to come bigger passive radiator, and copper plate

Building manual, but you need part when he put thermo past, but also conductive, bigger radiator and copper plate, also this guy is presume ham operator, and he actually won sonme award from XRP mosfets manufacturer for he's amplifier design.

HackRF One card, !!!THIS IS IMPOSRTANT!!!

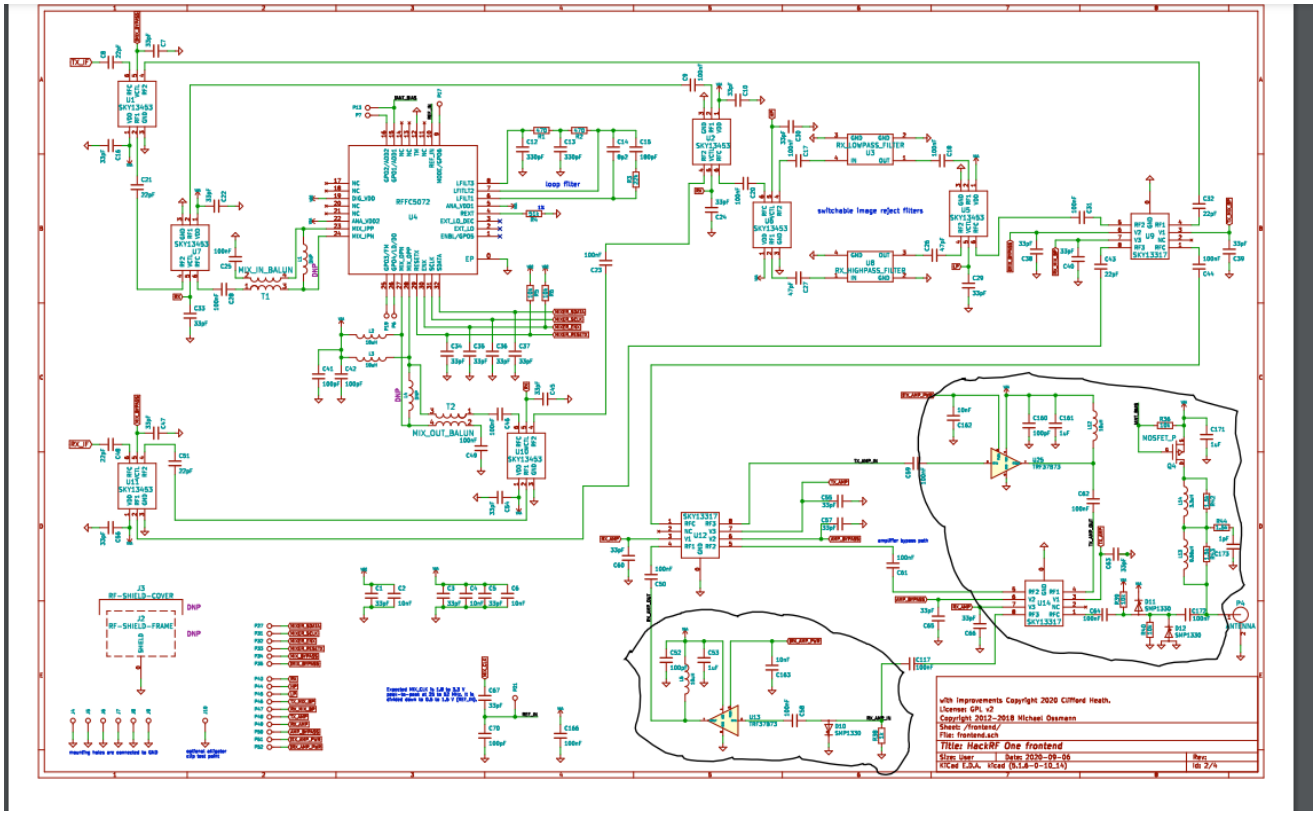
You have on the market original Mosmmans hackrf one and also chines clones, NO MATTER what you will buy, no matter what hardware design, think that right now it's 7 of them, if you going to run hackrf one on daily basics 24/7, you will burn mosfets build on car, and after that you will have card wich can give aroiund 60-70% of normal hackrf one card. I have already 3 broken hackrf cards, but I find hardware mods that actually works, and only one Chinese factory mades this hackrf one cards. ž

This subject is also processed in more details here , and Clifford Heath also made changes, you have option to buy he's changes, and some Chiness company made HackrRF with Clifford changes, or you can try to made changes by yourself. I can confirm that Clifford HackrRF card actually works for me 24/7 in TX mode, I don't use RX, I also have Chinesse clone from original Mossmann HackRF revision r7, and they suffer also from MGA-81563 disease, but must admit r7 last much longer for me (around 2 weeks) than previous hardware changes, after that you can't use additional gain of 14dB.

Antenna port needs better protection · Issue #541 · greatscottgadgets/hackrf

Steps to reproduce Expose the antenna to nearby 17kW airport radar (under 2km distance) while in receive mode Discover that the MMIC input amplifier is fried and receive sensitivity is greatly redu...
github.com

If you want to made changes by yourself, this is what you need to change on TX and RX side:



If you want to buy new card with Clifford changes this is link, but on the board need to be sign CKT08Mar2021