BlueJammer

- https://github.com/EmenstaNougat/ESP32-BlueJammer → solo binarios
- https://github.com/cifertech/RF-Clown → código
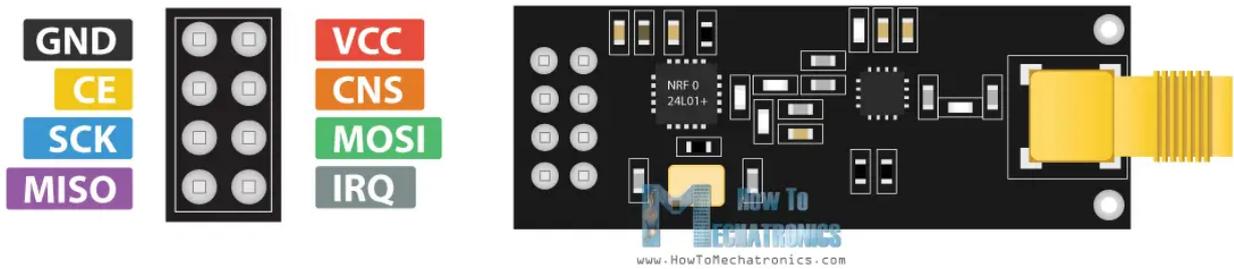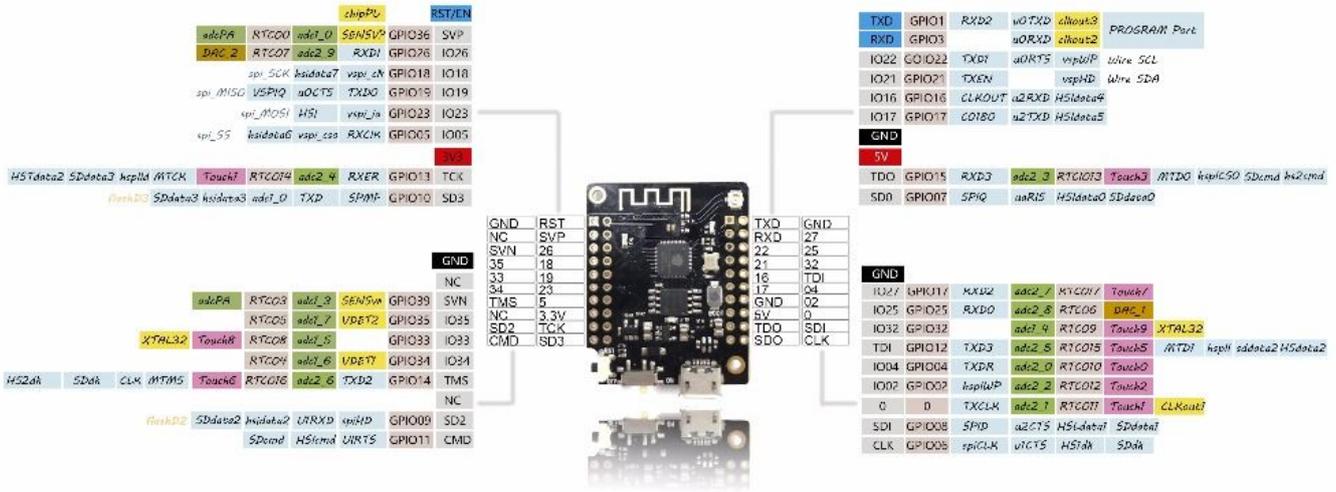
WiFi + Bluetooth Board
4MB Flash MINI 32 v2.0

Power
ESP32 VCC range: 2.2V-3.6V
VBAT: direct to battery (and charger)
VUSB: direct to USB (5V)
VCC: Output of regulator 3.3V/600mA
Up to 250mA during RF transmissions

Wireless
Wifi: 802.11 b/g/n/e/i
WPA/WPA2/WPA2-Enterprise/SPS
Bluetooth: Bluetooth 4.2/BLE

ESP32
Dual-core Xtensa 32-bit LX6
Up to 240MHz
520kB internal SRAM
4MB external flash

Multiplexed I/Os allow up to
18 ADC channels
3 SPI interfaces
3 UART interfaces
2 I2C interfaces
2 I2S interfaces
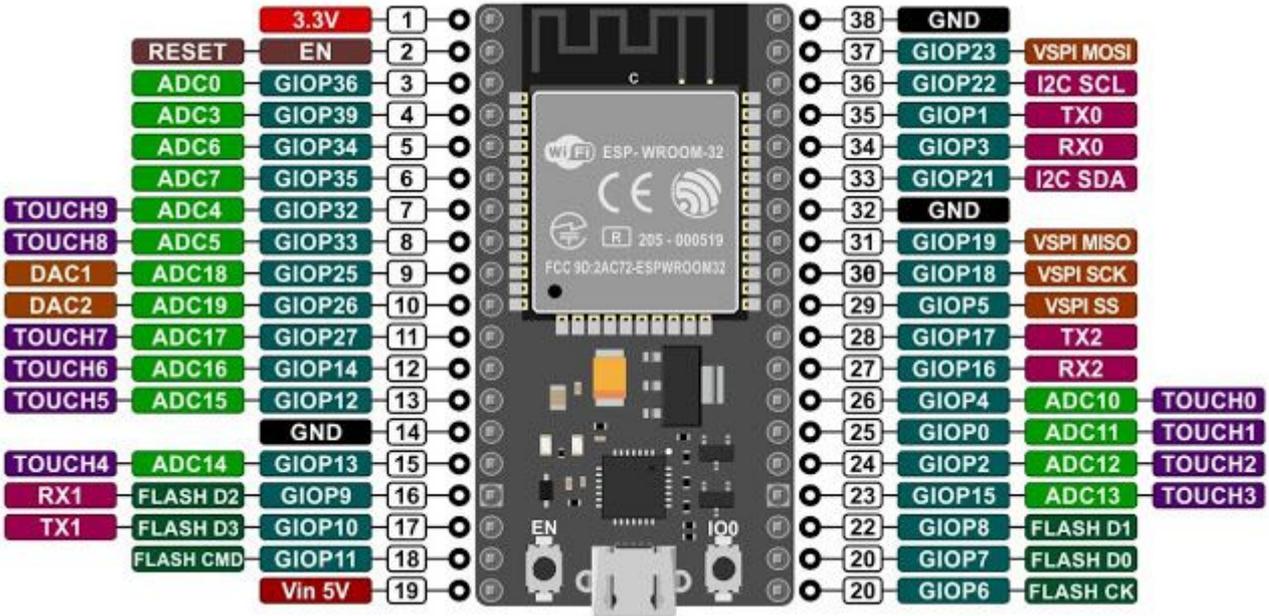16 LED PWM outputs
2 DACs
10 Capacitive Touch Inputs

ADC Preamp
GPIO pins 36,37,38, and 39 are able to be used as a low noise analog pre-amplifier
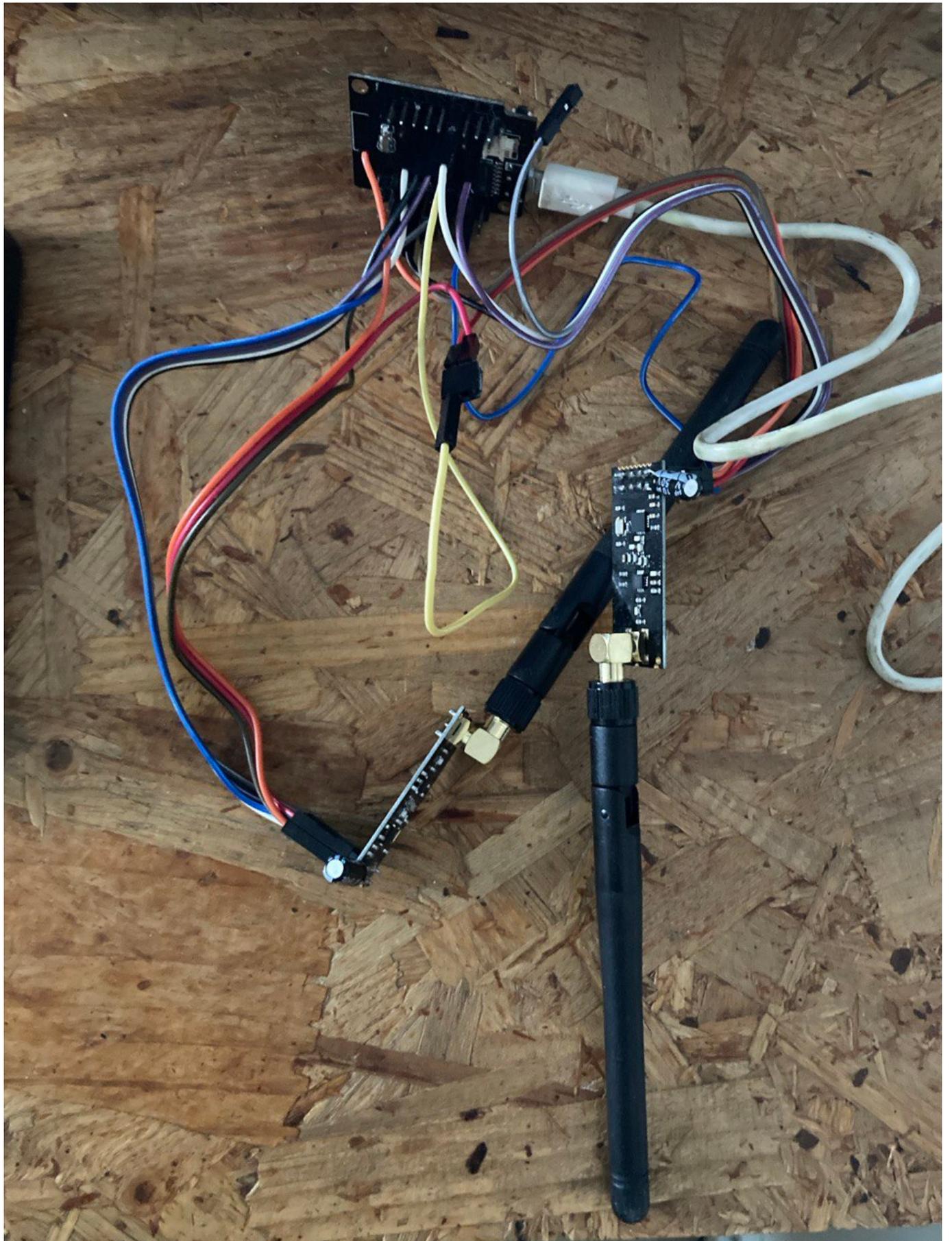
Other*
Hall Sensor
Temp sensor (-40C to 125C)
SD/SDIO/MMC Host Controller
CAN Bus

*On datasheet, but may not be supported yet

Name	ADC
Power	DAC
GND	SPI
Control	UART
Arduino	Touch
GPIO	Misc

*GPIO: Port Input Only
*ADC: Preamplifier ADC
GPIO 3.3V tolerant only

Firmware upload

- Descarga binarios para bootloader, particiones y firmware de
  https://github.com/EmenstaNougat/ESP32-BlueJammer/archive/refs/tags/ESP32-BlueJammer-v2.zip dentro de la carpeta Firmware_Files están los archivos
- El instalador web no funcionó (https://esp32-bluejammerflasher.pages.dev/)
- Se sube el firmware usando esptool

```
└─λ # Upload with bootloader and partitions (if you have separate files)
  esptool --chip esp32 --port /dev/ttyUSB0 --baud 921600 \
      --before default_reset --after hard_reset \
      write_flash 0x1000 bootloader.bin \
      0x8000 partitions.bin \
      0x10000 firmware.bin
```

El firmware una vez cargado de manera exitosa arranca pero presenta errores al momento de leer los chips nRF24

```
#######################################################################################################

ESP32-BLUEJAMMER

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Firmware : Combo-Channel-Select (BT-BLE-WiFi-RC)

BY EMENSTA

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!Educational purposes only!

https://github.com/EmenstaNougat/ESP32-BlueJammer

I'm not responsible for your actions!

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VSPI - FAILED

!!! SP (standard power) start failure! VSPI nRF24 module could NOT be initialized! #####################

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HSPI - FAILED

!!! HP (high power) start failure! HSPI nRF24 module could NOT be initialized! #######################
State 1: Bluetooth
```