Renzo Mischanti's Articles

Ebyte LoRa E220 device for Arduino, esp32 or esp8266: settings and basic usage

Ebyte LoRa E220 device for Arduino, esp32 or esp8266: library

Ebyte LoRa E220 device for Arduino, esp32 or esp8266: configuration

Ebyte LoRa E220 device for Arduino, esp32 or esp8266: fixed transmission, broadcast, monitor, and RSSI

Ebyte LoRa E220 device for Arduino, esp32 or esp8266: power-saving and sending structured data

Ebyte LoRa E220 device for Arduino, esp32 or esp8266: WOR microcontroller and Arduino shield

Ebyte LoRa E220 device for Arduino, esp32 or esp8266: WOR microcontroller and WeMos D1 shield

Ebyte LoRa E220 device for Arduino, esp32 or esp8266: WOR microcontroller and esp32 dev v1 shield

Github Ebyte E220 library

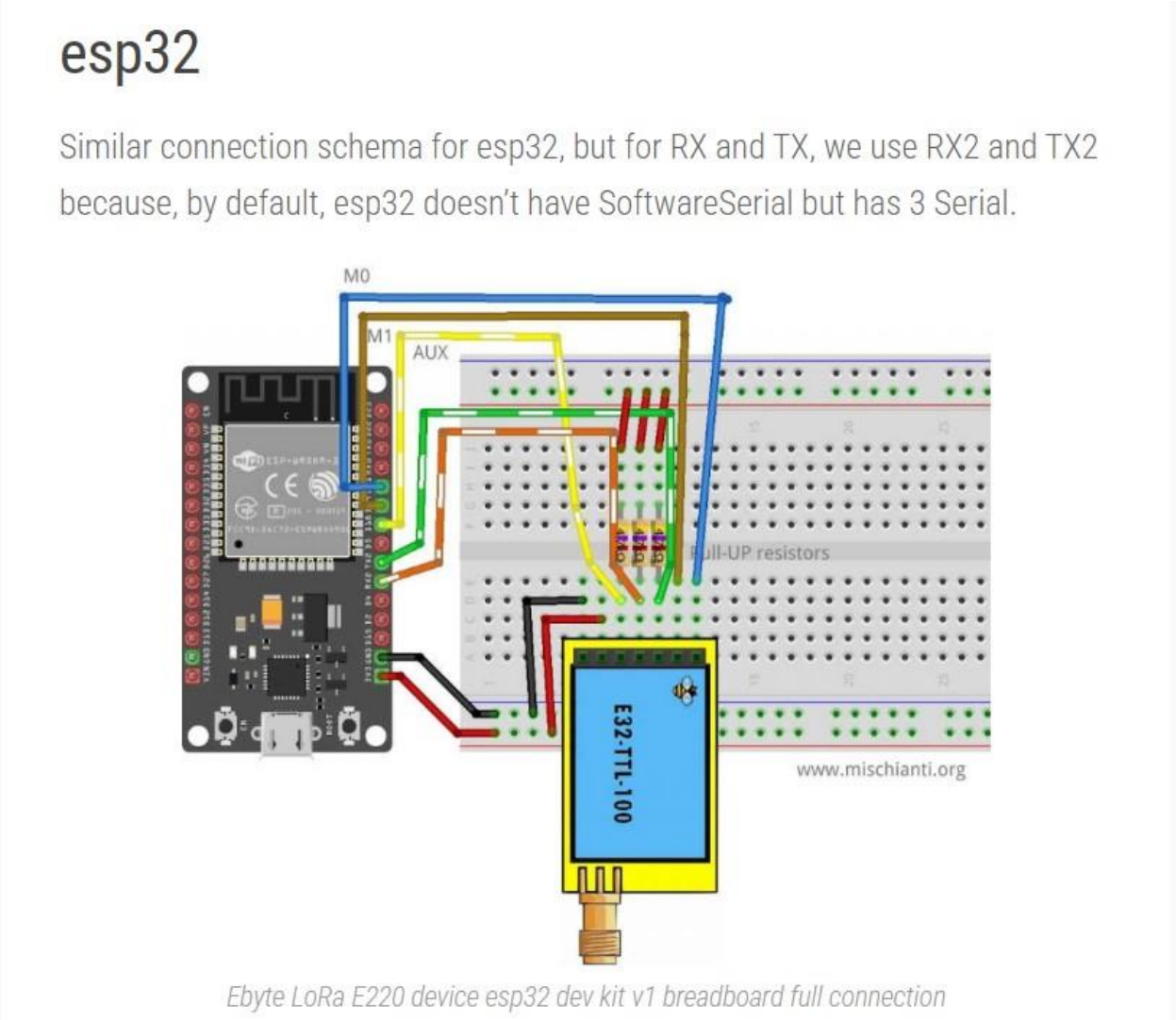
Mischianti Arduino LoRa shield (Open source)

Mischianti WeMos LoRa shield (Open source)

Mischianti ESP32 DOIT DEV KIT v1 shield (Open source)

Support Forum

Frizing diagram for Doit ESP32 Devkit V1:



Ebyte LoRa E220 device esp32 dev kit v1 breadboard full connection

Completed Ebyte E220-900T30D Project Code

Configuration settings:

1. Load and run sender: "01_setConfiguration_WOR_Sender.ino", find file in completed project code. This is from the xReef, E220 Library example –modified to use only ESP32 pins and WOR sender configuration.

2. Load and run receiver: “01_setConfiguration_WOR_Receiver.ino”, find file in completed project code. This is from the xReef, E220 Library example –modified to use only ESP32 pins and WOR sender configuration.

Suggestion: Label one breadboard “Sender” and the other breadboard “Receiver.”

Connect the breadboard labeled “Sender”; load “E220_Transceiver_Videofeed_Sender.ino” into the Arduino IDE and run.

Connect the breadboard labeled “Receiver”; load “E220_Transceiver_Videofeed_Receiver.ino” into the Arduino IDE and run.

ESP32 Core 2.0.14 was used in development of project.

Development of E220 project would not have been possible without Renzo Mischianti’s E220 library and his articles covering EByte Transceivers. Well, done Mr. Mischianti!

Using dual windows, Arduino IDE Serial Monitors; open “Sender” and run. Open serial monitors in one window and “Receiver” in the other window. Run “receiver” and open serial monitor. Goto static ipAddress “10.0.0.27/relay”. Make this window as small as you are able to and still see the refresh icon.

“Sender” should show the webserver information and connection result. Receiver should show “Stating Deep sleep.”

Select the refresh icon. “Sender” will show countdown timer triggered and battery power turned on. Countdown timer will expire in about two minutes. “Receiver” should show Battery power off and going to deep sleep. Repeat refreshing to wake ESP32 by WOR.

No attempt was made to measure ESP32 Devkit V1 deep sleep current; not optimized for lowest current consumption, plus being a development board not well suited for battery power.

WOR Current meter readings Increased the separation between transceivers.

Ebyte, E220 Series WOR Configuration notes