

433Mhz RF Trimerli Alıcı - RWS-371

Spurkfun Sayfası: https://www.sparkfun.com/products/10532

To ensure that the RF links are working, we recommend trying to get the RF links working with our <u>example code first</u>. However, I have tested the RF modules with the VirtualWire librarie and Arduino 1.0.6 IDE software. I was able to get it working with this library => <u>VirtualWire 1.20</u>. This library worked with both Arduino 0023 and Arduino 1.0.6.

RF Links

The example code used with the an Arduino microcontroller explains the setup for each RF Link. This is the setup which will work with either RF Link frequency band.

Transmitter Code (4 pin module)

Pin 3 of your Arduino should connect to pin 2 of your <u>RF Link Transmitter 434MHz</u>. Button is connected to the transmitting Arduino on pin 8 separate from the RF Link Transmitter. When a button is pressed on the transmitter, the corresponding LED should light up on the receiver and a character will be sent.

Receiver Code (8 pin module)

Pin 2 of your Arduino should connect to pin 2 of your <u>RF Link Receiver 434MHz</u>. When the button is pressed from the transmitter side, the corresponding LED on this side will light up on pin 8. One thing to note is that the associated LED will not light up on the receiver end if you do not have the associated character to check if it is what is received. An example is if you send a string of characters "Pin 4," the receiver LED will not light up when the characters "Pin " is sent. It will only light up when it sees the number "4".

Note 1: It seems like when the receiver code is compiled with Arduino 0023 that the characters sent show a character and a space right after it in the serial monitor. When compiled with Arduino 1.0.6, you get an hex value and a space that is related to the <u>ASCII</u> character that was sent. You can verify it by checking the ASCII table and it will show that the hexadecimal value that was sent is indeed the character that was sent from the receiver. This has something to do with the shift in versions from Arduino's 0023 to the Arduino 1.0 and above. Something was modified in the compiler or how a function was defined in the Arduino IDE.

Note 2: The RF Links are cheap wireless modules so you might get some intermittent data transmission/ corrupt data after a certain distance. They have a lot of noise. A better and more secure option might be to use the <u>XBee Series 1</u> Wireless Modules.

Note 3: I am aware that the Virtual Library is EOL and that the RadioHead library supersedes it. I found out in the middle of updating the code. You shouldn't have a problem with the library though even though it is EOL.