

315Mhz RF Remote Receiver with On Board Relay – Arduino Compatible

This is one channel RF Receiver with an onboard Relay. The project can be used for ON/OFF control of AC or DC loads using an RF remote. It's an Arduino compatible Receiver project that consists of, Atmega328 microcontroller, 315MHz RF Receiver, 12v Relay, 5V Regulator, etc.

Arduino Pins Receiver: D3 Relay, D11 Data in from AM 315Mhz Receiver

Features

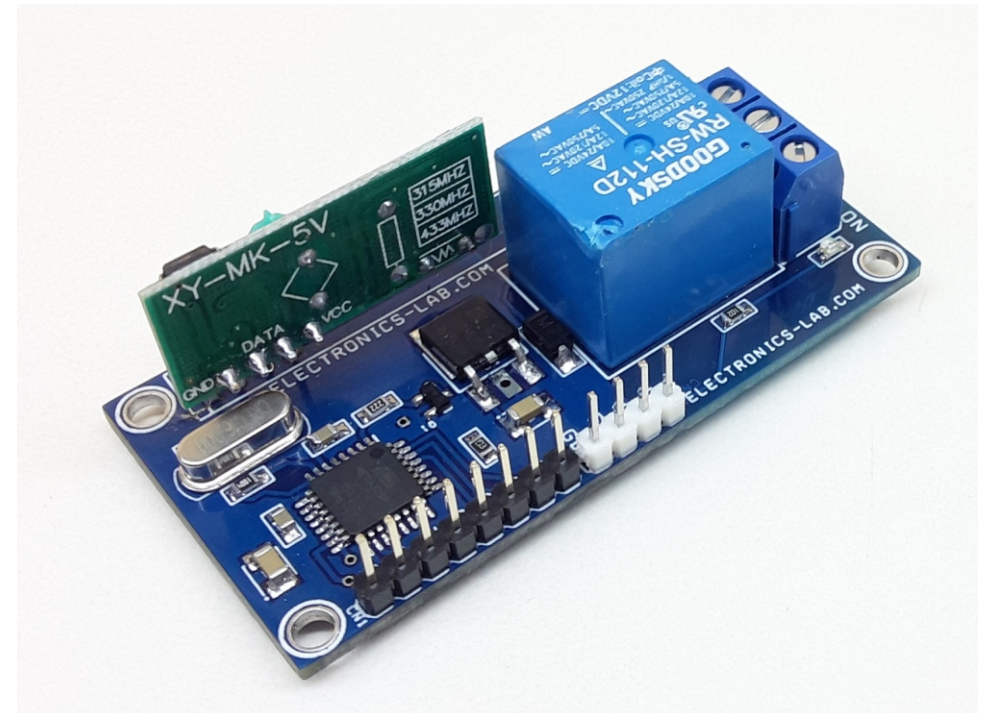
- Supply 12V DC @ 50mA When Relay is ON
- Relay Contacts 10A @ 24V DC, 5Amps @ 250V AC
- PCB dimensions: 64.77 x 32.86 mm

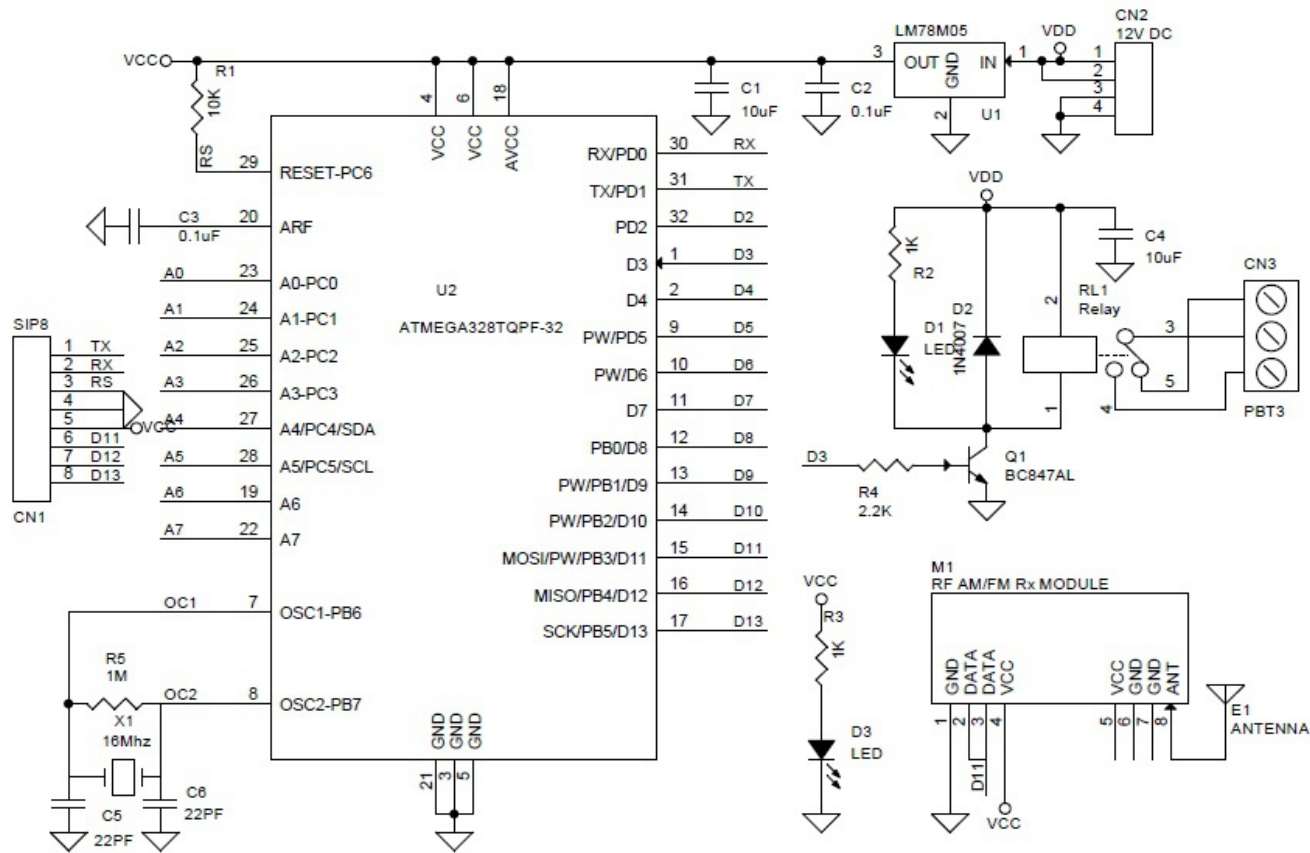
Applications

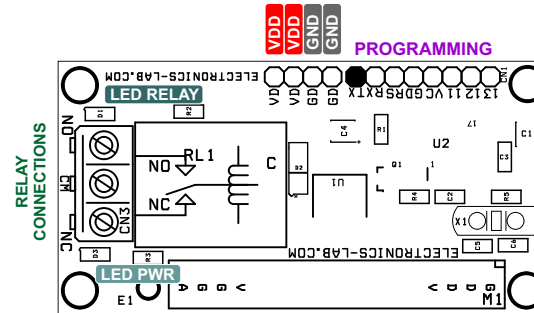
RF Remote ON/OFF Fans, Lights, Home Appliances, Door control

Arduino Code provided as a download. The code works with our 315Mhz transmitter project, it toggles the Relay when the switch is pressed. A new Atmega328 chip requires Bootloader and Arduino firmware programming, check link bellow to learn more about programming the new Atmega328. PCB has an onboard programming port.

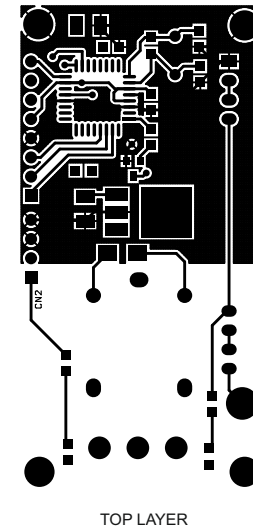
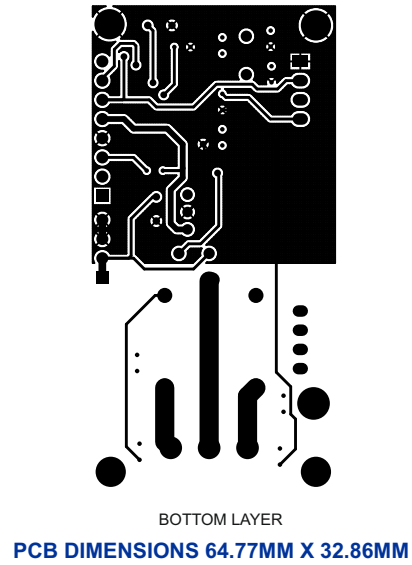
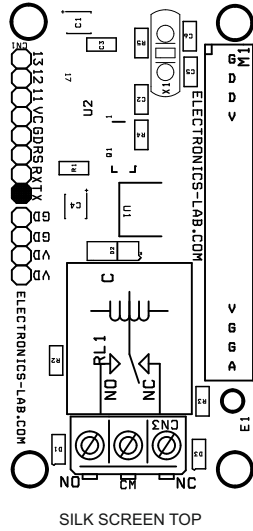
<https://www.arduino.cc/en/Tutorial/BuiltInExamples/ArduinoToBreadboard>

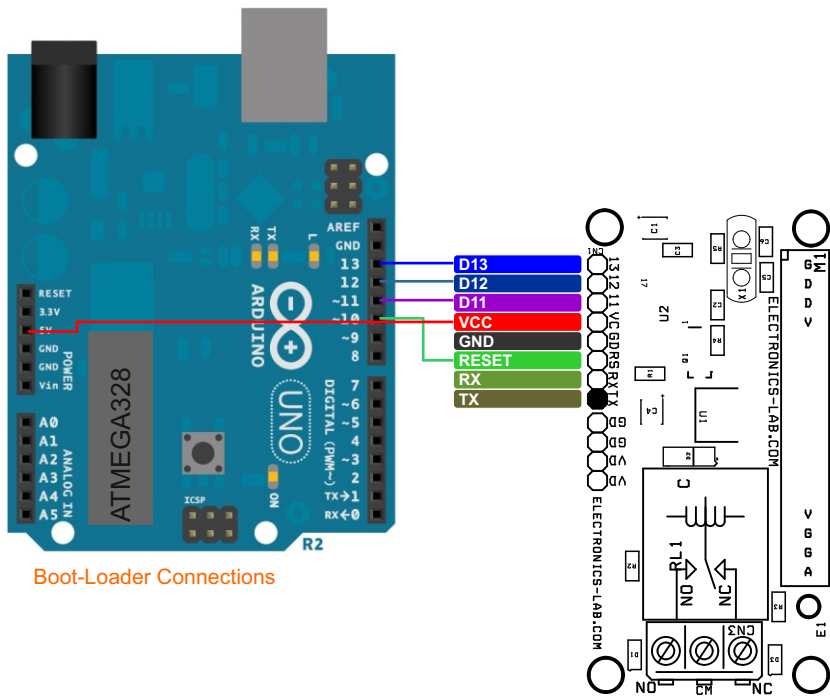




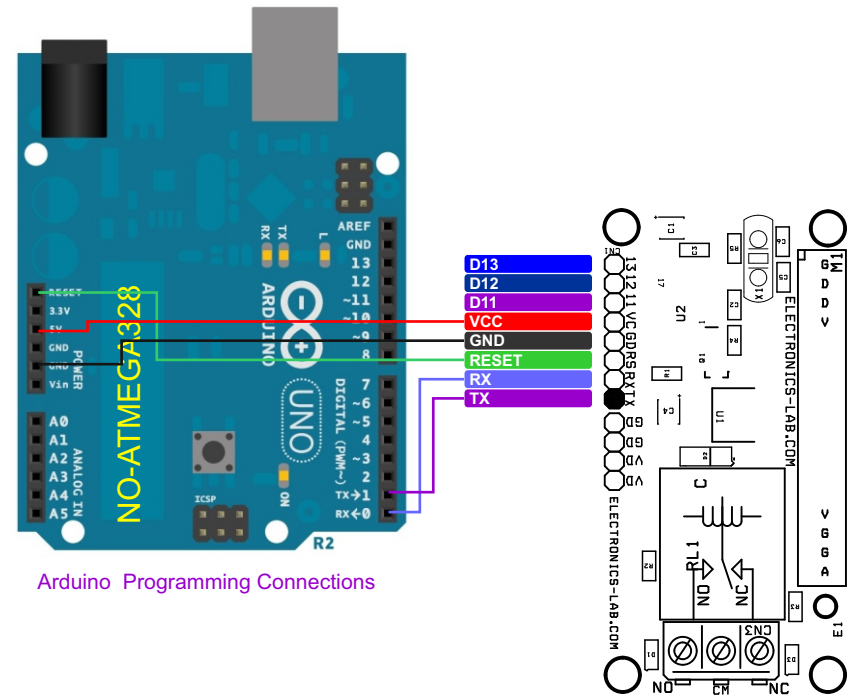


BOM						
NO.	QNTY.	REF.	DESC.	MANUFACTURER	SUPPLIER	SUPPLIER PART NO
1	1	CN1	8 PIN MALE HEADER PITCH 2.54MM	WURTH	DIGIKEY	732-5321-ND
2	1	CN2	4 PIN MALE HEADER PITCH 2.54MM	WURTH	DIGIKEY	732-5317-ND
3	1	CN3	3 PIN SCREW TERMINAL PITCH 5.08MM	PHOENIX	DIGIKEY	277-1248-ND
4	2	C1,C4	10uF/25V SMD SIZE 1210	MUARATA/YAGEO	DIGIKEY	
5	2	C2,C3	0.1uF/50V SMD SIZE 0805	MUARATA/YAGEO	DIGIKEY	
6	2	C5,C6	22PF/50V SMD SIZE 0805	MUARATA/YAGEO	DIGIKEY	
7	2	D1,D3	LED RED SMD SIZE 0805	OSRAM	DIGIKEY	475-1278-1-ND
8	1	D2	1N4007 SMD	DIODE	DIGIKEY	S1MBDITR-ND
9	1	E1	ANTENNA			1 FEET HOOKUP WIRE
10	1	M1	RF AM 432MHZ MODULE			ALIEXPRESS
11	1	Q1	BC847AL	NEXPERIA	DIGIKEY	1727-2924-2-ND
12	1	RL1	Relay 12V	TE	DIGIKEY	PB2029-ND
13	1	R1	10K 5% SMD SIZE 0805	MUARATA/YAGEO	DIGIKEY	
14	2	R2,R3	1K 5% SMD SIZE 0805	MUARATA/YAGEO	DIGIKEY	
15	2	R4,R5	1M 5% SMD SIZE 0805	MUARATA/YAGEO	DIGIKEY	
16	1	U1	LM78M05	ON SEMI	DIGIKEY	MC78M05CDTGOS-ND
17	1	U2	ATMEGA328TQPF-32	MICROCHIP	DIGIKEY	ATMEGA328PB-AURCT-ND
18	1	X1	16Mhz	ECS INC	DIGIKEY	X1103-ND





Boot-Loader Connections



Arduino Programming Connections