
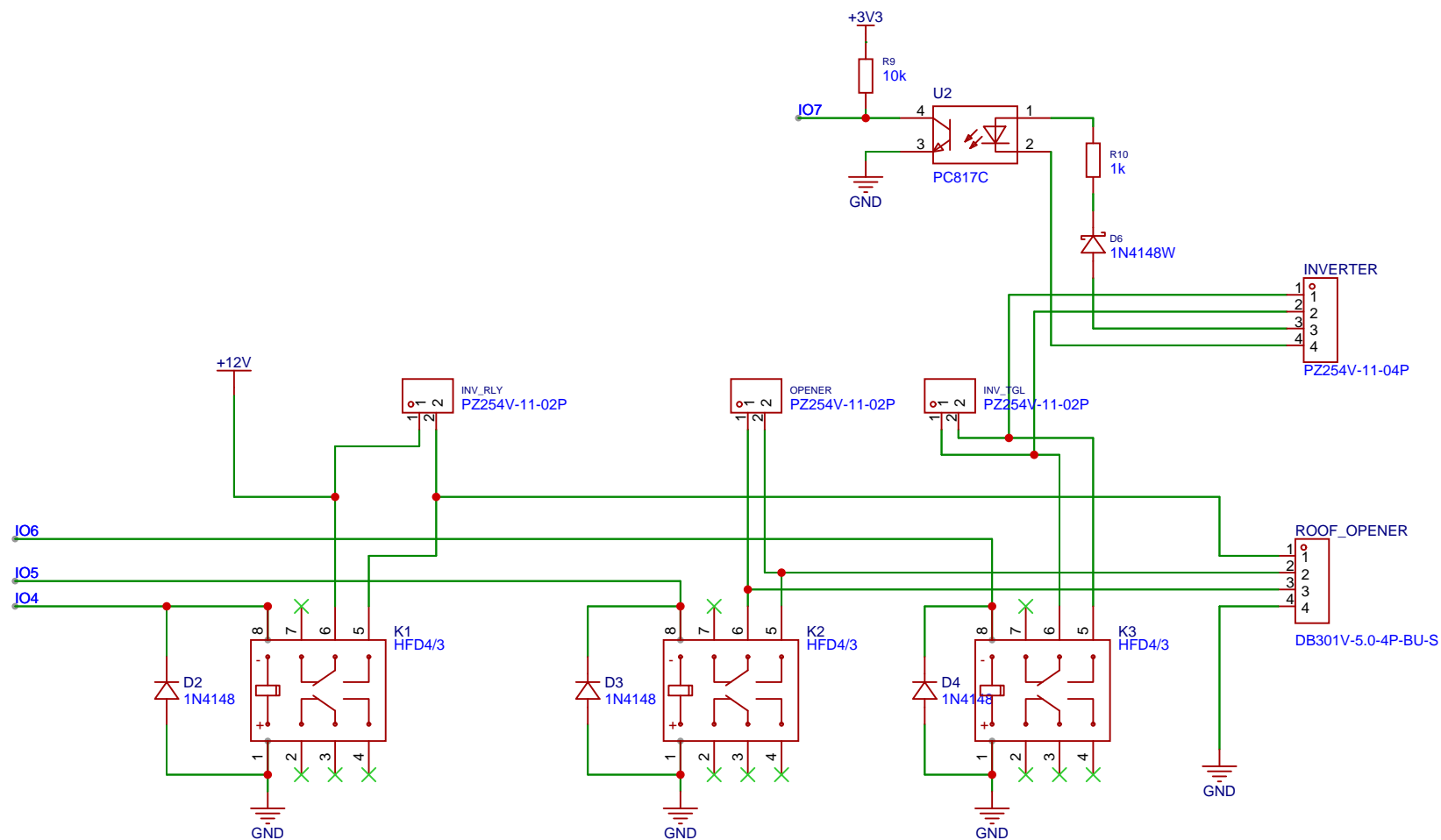
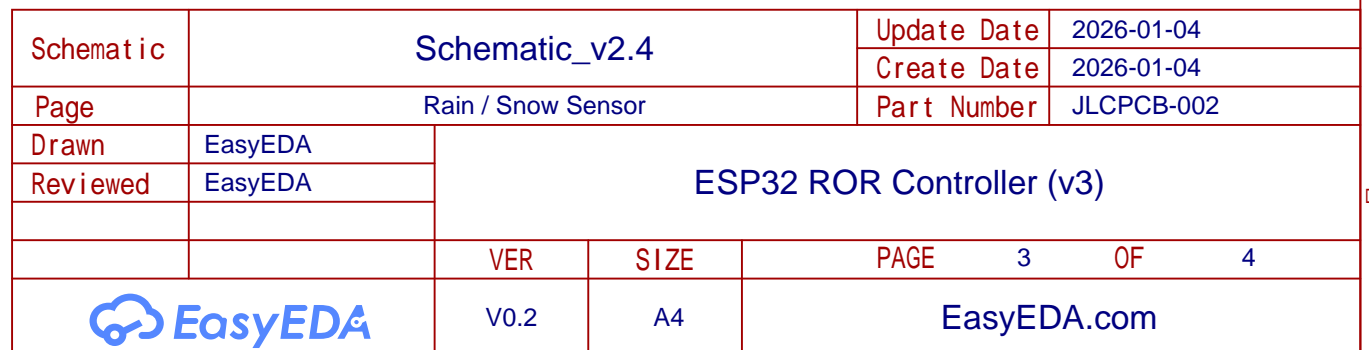


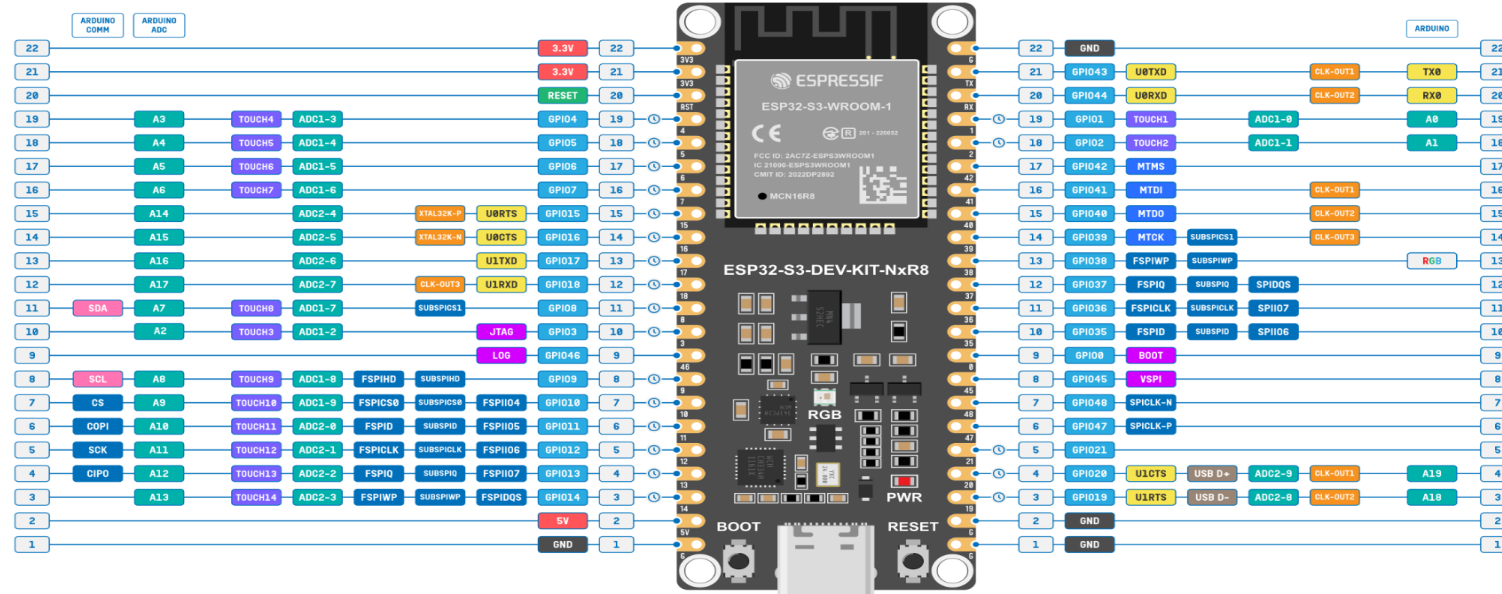
Schematic	Schematic_v2.4			Update Date	2026-01-07
				Create Date	2026-01-04
Page	Main PCB			Part Number	JLPCB-003
Drawn	Corey Smart	ESP32 ROR Controller (v3)			
Reviewed	Gemini				
		VER	SIZE	PAGE	1 OF 4
		v2.4	A4		



Schematic	Schematic_v2.4		Update Date	2026-01-07
			Create Date	2026-01-04
Page	Relay Circuit		Part Number	JLCPCB-002
Drawn	EasyEDA	ESP32 ROR Controller (v3)		
Reviewed	EasyEDA			
		VER	SIZE	PAGE 2 OF 4
EasyEDA		V0.2	A4	EasyEDA.com



ESP32-S3-DEV-KIT-NxR8 PINOUT



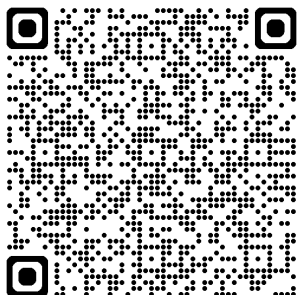
PHYSICAL PIN	POSITIVE SUPPLY	CLOCK IN/OUT	SPI
CONTROL	GROUND SUPPLY	TOUCH INPUTS	UART
GPIO	ADC INPUTS	I2C	USB
JTAG	RTC IO	BOOTSTRAP	RTC POWER DOMAIN


- GPIOs 22-25 are not available from the chip.
- TX0 and RX0 can be accessed as Serial in Arduino.
- USB-CDC can be accessed as Serial in Arduino.
- Both Serial and Serial0 can be used for programming.
- All GPIO pins support PWM and interrupts.
- Built-in RGB LED is connected to GPIO38.
- Arduino pin references are as per ESP32-S3-DevKitC-1 definition.
- All touch input pins can be used as T1-T14 in Arduino.
- Most peripheral functions can be assigned to any GPIO pins, thanks to the IO mux.

Board Name: ESP32-S3-DEV-KIT-NxR8
 Vendor: Waveshare (SKU 26408)
 Module: ESP32-S3-WROOM-1
 Flash: 16 MB (NVS) / 8 MB (NVS)
 PSRAM: 8 MB
 MCU: ESP32-S3, 32-bit Xtensa, Dual-Core, 240 MHz
 Wi-Fi IEEE 802.11 b/g/n 2.4 GHz + BLE 5.0
 52 KB SRAM, 128 KB in RTC, 384 KB ROM, 45 GPIOs, 4x SPI, 3x UART,
 2x I2C, 1x Touch, 2x I2S, 1x LED PWM, USB-OTG, TWAIN/CAN,
 2x 12-bit ADC, 1x LED interface, DVP



<https://www.circuitstate.com/pinouts/waveshare-esp32-s3-dev-kit-nxr8-wi-fi-development-board-pinout-diagram-arduino-reference/#IC>



Schematic	Schematic_v2.4			Update Date	2026-01-04	
				Create Date	2026-01-04	
Page	Board Reference			Part Number	JLPCB-003	
Drawn	Corey Smart	ESP32 ROR Controller (v3)				
Reviewed	Gemini					
		VER	SIZE	PAGE	4	OF 4
		v0.3	A4			

