

# 30A Home Automation with ESP32

## Bill of Materials (BOM)

Reference	Qty	Value / Part Number	Footprint	Notes / Datasheet
C1	1	10μF	0805	-
C2	1	22μF	0805	-
D1, D4	2	LED	LED 0805	Status LED
D2, D3	2	1N4148	DO-35	Signal diode
H1–H4	4	Mounting Hole	M2.5	Excluded from BOM
J1	1	Conn 01x04	PinHeader 2.54mm	-
J2	1	Screw Terminal 01x04	5.08mm	-
J3	1	Screw Terminal 01x03	5.08mm	-
K1	1	RAYEX-L90AS	Relay THT	30A Load Relay
K2	1	PR13-5V-450-1C	Relay THT	-
PS1	1	HLK-PM01	AC-DC Module	5V SMPS
Q1, Q2	2	S8050	TO-92	NPN Transistor
R1–R6	6	1kΩ	0805	-
R7, R8	2	10kΩ	0805	-
SW1, SW2	2	Push Button	6mm THT	-
U1	1	ESP32-WROOM-32	RF Module	Main MCU
U2, U3	2	PC817	DIP-4	Optocoupler
U4	1	AMS1117-3.3	TO-252	3.3V Regulator