



Comment	Description	Designator	Footprint	LibRef	Quantity
ESP32 WROOM32			ESP32-WROOM-32D	ESP32 WROOM 32	1
Nut Nhan 2 Chan SMD 3x6x2.5	Nut Nhan 2 Chan SMD 3x6x2.5	BT1, BT?	Nut Nhan 2 Chan SMD 3x6x2.5	Nut Nhan 2 Chan SMD 3x6x2.5	3
104	Dán	C1, C2, C3, C4, C5, C8, C10, C11, C12, C13, C14, C?	tu 1206	Tu 1206 104 50V 20%	16
106	Dán	C6, C7, C9, C?	tu 1206	Tu 1206 106 16V 20%	5
105	Dán	C?	tu 1206	Tu 1206 105 50V 20%	1
1N4007	Dán	D?	DIODE SMA	Diode M7 (4007)	1
Header 4P	Cắm	H1, H?	XH2.54M-4	Header 4P 2.54 Dục Thang	2
Header	Cắm	H?	XH2.54M-3	Header 3P 2.54 Dục Thang	1
JACKDC 5.5	JACKDC 5.5	JACKDC?	JACKDC 5.5	JACKDC 5.5	1
LED 0805	Dán	L?	LED-1206-Blue	LED 1206 Xanh Duong	1
LED 0805	Dán	L?	LED-1206-Green	LED 1206 Xanh La	1
LED 0805	Dán	L?	LED-1206-Red	LED 1206 Do	2
LED 0805	Dán	L?	LED-1206-Yellow	LED 1206 Vang	1
Ra-02	Lora sx1278	Lora1	Sx1278	Ra-02	1
S8050	Transistor NPN	Q?	S8050	S8050	2
10k	Dán	R1, R3, R?	tro smd 1206	Tro 1206 1% 10k, Tro 1206 5% 10k	5
220R	Dán	R2	tro smd 1206	Tro 1206 1% 220R	1
1k	Dán	R?	tro smd 1206	Tro 1206 5% 1k	1
390R	Dán	R?	Tro smd 1206	Tro 1206 5% 390R	4
470R	Dán	R?	tro smd 1206	Tro 1206 1% 680R	2
SIMA7680C		SIM?	SIMA7680C	SIMA7680C	1
STM32F103C8T6	ARM®Cortex®M3 STM32F1 Microcontroller IC 32-Bit 72MHz 64KB (64Kx 8) FLASH 48-LQFP (7x7)	U1	LQFP-48_19.6_393_58X11_SMD	IC_STM32F103C8T6	1
LM1117-3.3V	800mA Low-Dropout Linear Regulator	U2	SOT223	LM1117	1
CH340C	USB Bridge, USB to UART USB 2.0 UART Interface	U?	SOIC16_50_284_25X90_SMT	CH340C	1
USB Micro 5p DIP	USB Type B	USB?	USB Micro 5p DIP	USB Micro 5p DIP	1
Crystal_8MHz	8MHz	X1	XTAL_8MHz	Crystal_8MHz	1