

**ECE477 Bill of Materials v2.0****Year: 2021****Semester: Spring****Author: Team 4 - Nate Pietraszak (npietras), Aidan Roy (roy88), Devansh Rat****Created: 2/12/2021****Last Modified: 3/10/2021**

Project_Component				
Description	ID	Qty	Value	Package
STM32L476VGT7	U3	1		LQFP
ESP-01 WiFi Board	U4	1		Through-Hole
Human Presence Sensor		1		Off-Board
QR Code Scanner		1		Off-Board
LCD Display		1		Off-Board
Display Driver		1		Off-Board
Thermopile		1		Through-Hole
Waterproof Speaker		1		Off-Board
Li-ion battery pack		2	3.7V, 66	Off-Board
Step Down Converter		1	3.3V	SON
Boost Converter		1	5V	10-WDFDN Ex
Class-D Amplifier		1		Off-Board
Low Voltage Monitor		1		5-SSOP
1x12 Pin Snappable Header		4		Through-Hole
Qwiic JST Connector		1		SMD
Qwiic Cable		1	500mm	Off-Board
JST-PH 2-Pin Right Angle Connector		2		SMT
Resistor (5)		12	5	Through-Hole
Resistor (100)		1	100	Through-Hole
Resistor (4.7k)		1	4.7k	Through-Hole
Resistor (25k)		1	25k	Through-Hole
Resistor (68k)		2	68k	Through-Hole
Resistor (100k)		1	100k	Through-Hole
Resistor (160k)		1	160k	Through-Hole
Capacitor (100n)		3	100n	Through-Hole
Capacitor (1u)		7	1u	Through-Hole
Capacitor (4.7u)		2	4.7u	Through-Hole
Capacitor (10u)		2	10u	Through-Hole
Capacitor (22u)		2	22u	Through-Hole
Inductor (1u)		1	1u	Through-Hole
Inductor (2u)		1	2u	Through-Hole

**Project Name: Virtual Queue**  
**hi (drathi), Chok Yip Lau (lau55)**

<b>Manufacturer</b>	<b>Mfg. Part #</b>	<b>Supplier</b>
STMicroelectronics	STM32L476VGT7	STMicroelectronics
Espressif	ESP8266	SparkFun
AKM	AK9753AE	SparkFun
DFRobot	GM65	DFRobot
ON TAT Industrial Company	YX700WV03	Adafruit
RAiO	RA8875	Adafruit
TE Connectivity Measurement Specialties	G-TPCO-033	DigiKey
CUI Devices	CES-30207-158L120-67	DigiKey
Shenzhen PKCELL Battery Co., LTD	ICR18650 6600mAh 3.7V	Adafruit
Texas Instruments	TPS62080ADSGR	Texas Instruments
Maxim Integrated	MAX8815AETB+T	DigiKey
Diodes Incorporated	PAM8302A	Adafruit
Rohm Semiconductor	BD46335G-TR	DigiKey
Molex	22-65-1120	Mouser
SparkFun	PRT-14417	SparkFun
SparkFun	PRT-14429	SparkFun
4UCON TECHNOLOGY INC.	0217JFDH06	Adafruit
Yageo	CFR-25JT-52-5R	Mouser
KOA Speer Electronics	CFS1/4CT52R101G	Mouser
Vishay / Beyschlag	CBB0207004701GC100	Mouser
Vishay / Dale	RN60D2502FB14	Mouser
Yageo	CFR-12JT-52-68K	Mouser
Vishay / Beyschlag	CBB0207001003GCT00	Mouser
Ohmite	OL1645E-R52	Mouser
Vishay / BC Components	K104K15X7RF53H5G	Mouser
Vishay / BC Components	A105K20X7RF5UAAP	Mouser
Vishay / Roederstein	MKP1839547164	Mouser
Vishay / Roederstein	MKP1839610164	Mouser
jCDE / Illinois Capacitor	226MWR100K	Mouser
Bourns	RLB0608-1R0ML	Mouser
Sumida	RCH654NP-2R0M	Mouser

Qty:	
Supplier Part #	
STM32L476VGT7	
WRL-17146	
SEN-14349	
DFR0660	
2353	
1590	
223-1582-ND	
2223-CES-30207-158L120-67-ND	
353	
TPS62080ADSGR	
MAX8815AETB+TCT-ND	
2130	
BD46335GCT-ND	
538-22-65-1120	
PRT-14417	
PRT-14429	
1769	
603-CFR-25JT-52-5R	
660-CFS1/4CT52R101G	
594-CBB0207004701GC1	
71-RN60D2502F	
603-CFR-12JT-52-68K	
594-CBB0207001003GCT	
588-OL1645E-R52	
594-K104K15X7RF53H5G	
594-A105K20X7RF5UAAP	
75-MKP1839547164	
75-MKP1839610164	
598-226MWR100K	
652-RLB0608-1R0ML	
851-RCH654NP-2ROM	