	Name or Model	Type	Key Characteristics	Manufacturer	Price	Notes	
Main Module	STM32L100RCT6TR	Microcontroller		ST Microelectronics	3.29420 per unit for 2500+ units		ARM® Cortex®-M3 STM32 L1 Microcontroller IC 32-Bit 32MHz 256KB (256K x 8) FLASH 64-LQFP (10x10) , LCD, I2C capability, UART/USART
	DT043BTFT-PTS1	LCD Display+Driver		Displaytech	60.1559 per unit for 100 units		4.3" PCAP TFT Display, 480 x 272 RGB resolution, 24-bit data bus, up to 16M colors, 3V supply, I2C interface for touch
	esp8266	Wifi chip/BLE		Espressif Systems	3.36 to 8.95 per unit		
	IXD3235A30DMR-G	Voltage Reg		Zilog	0.5824 per unit for 3000 units		Buck Switching Regulator IC Positive Fixed 3V 1 Output 600mA SC-74A, SOT-753, input max 6V
	KTPS05-05015U-VI-P1	AC/DC converter		Volgen America/Kaga Electronics USA	6.1905 per unit for 500+ units		5V 7.5W AC/DC External Wall Mount Adapter Fixed Blade Input
	GPTS203211B	Soft Button		CW Industries	0.4785 per unit for 2500 units		Pushbutton Switch SPST Standard Through Hole
	Custom	Casing		Custom	???		
	Custom	PCB		Custom	$30 student discount		
Sound Module	Piezo Buzzer	Speakers		TDK	0.76 for 100+ units		3.3V input, frequency range 2KHz to 10KHz
	esp8266	Wifi chip/BLE		Espressif Systems	3.36 to 8.95 per unit		
	ATmega3268	Microcontroller		Atmel	1.62740 for 100+ unit		Atmel AVR 8-bit microcontroller, UART, two 8-bit controller, PWM, 23I/O
	Custom	Casing		Custom	???		
	Custom	PCB		Custom	$10		pcbway.com
	KTPS05-05015U-VI-P1	AC/DC converter		Volgen America/Kaga Electronics USA	6.1905 per unit for 500+ units		5V 7.5W AC/DC External Wall Mount Adapter Fixed Blade Input
Light Module							
		Led bulb/light		Custom	1.95 per unit		
	ATmega3268	Microcontroller		Atmel	1.62740 for 100+ unit		Atmel AVR 8-bit microcontroller, UART, two 8-bit controller, PWM, 23I/O
	esp8266	Wifi chip/BLE		Espressif Systems	3.36 to 8.95 per unit		Wireless Bluetooth RF Transceiver 8Mbit Module serial RS232 TTL HC-05
	Custom	Casing		Custom	???		
	Custom	PCB		Custom	$30 student discount		
	12V N-channel MOSFET	Transistor		Fairchild	0.86 for 100+ unit	for intensity	32A, 60V, RDS(on) = 0.035Ω @VGS = 10 V
		switch		Custom			
Sensing Module	Force Sensitive Resistor	Sensor		Adafruit	6.36 per 100+ unit		
	PIR motion Sensor	Sensor		Adafruit	7.96 per 100+ unit		
	ATmega3268	Microcontroller		Atmel	1.62740 for 100+ unit		Atmel AVR 8-bit microcontroller, UART, two 8-bit controller, PWM, 23I/O
	esp8266	Wifi chip/BLE		Espressif Systems	3.36 to 8.95 per unit		Wireless Bluetooth RF Transceiver 8Mbit Module serial RS232 TTL HC-05
	Custom	Casing		Custom	???		
	Custom	PCB		Custom	$30 student discount		
	KTPS05-05015U-VI-P1	AC/DC converter		Volgen America/Kaga Electronics USA	6.1905 per unit for 500+ units		5V 7.5W AC/DC External Wall Mount Adapter Fixed Blade Input
Shower Module	JC502C3R5/17	Temperature Sensor		Amphenol Advanced Sensors			NTC Thermistor 5k Pipe Sensor Assembly
		Custom Hot/Cold valve					
	ATmega3268	Microcontroller		Atmel	1.62740 for 100+ unit		Atmel AVR 8-bit microcontroller, UART, two 8-bit controller, PWM, 23I/O
	esp8266	Wifi chip/BLE		Espressif Systems	3.36 to 8.95 per unit		
	Custom	Casing		Custom	???		
	Custom	PCB		Custom	$30 student discount		
	KTPS05-05015U-VI-P1	AC/DC converter		Volgen America/Kaga Electronics USA			5V 7.5W AC/DC External Wall Mount Adapter Fixed Blade Input
Curtain Module							
		switch					
	ATmega3268	Microcontroller		Atmel	1.62740 for 100+ unit		Atmel AVR 8-bit microcontroller, UART, two 8-bit controller, PWM, 23I/O
	esp8266	Wifi chip/BLE		Espressif Systems	3.36 to 8.95 per unit		
	Custom	Casing		Custom	???		
	Custom	PCB		Custom	$30 student discount		
	KTPS05-05015U-VI-P1	AC/DC converter		Volgen America/Kaga Electronics USA			5V 7.5W AC/DC External Wall Mount Adapter Fixed Blade Input
		curtains/blinds+servo+drivebelt		Custom Design			
Coffee Module	Power relay	Relay circuit		Omron	21.15 for 500+ unit		
		Coffee machine		Custom			
	ATmega3268	Microcontroller		Atmel	1.62740 for 100+ unit		Atmel AVR 8-bit microcontroller, UART, two 8-bit controller, PWM, 23I/O
	esp8266	Wifi chip/BLE		Espressif Systems	3.36 to 8.95 per unit		Wireless Bluetooth RF Transceiver 8Mbit Module serial RS232 TTL HC-05
	Custom	Casing		Custom			
	Custom	PCB		Custom			