





tong0701 Add files via upload

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Component Name	Description	Qty	Notes		
Microcontroller	Seeed Studio XIAO ESP32C3	2	1 for Sensor Device, 1 for Display Device		
Distance Sensor	VL53L0X Time-of-Flight (ToF) Sensor	1	I2C interface		
Stepper Motor	28BYJ-48 (5V)	1	For status gauge		
Motor Driver	ULN2003 Driver Board	1	Drives the stepper motor		
Visual Indicator	RGB LED (Common Cathode/Anode)	1	Indicates Busy (Red) / Free (Green)		
Input	Momentary Push Button	1	For reset / mode selection		
Power Source	3.7V LiPo Battery	1	For Sensor Device (wireless)		
Resistors	220Ω / 330Ω	3	For RGB LED protection (current limiting)		
PCB/Prototyping	Custom PCB or Perfboard	2			
Cabling	Jumper wires / Battery connector	1 set			

<https://github.com/tong0701/TECHIN514/tree/main/Project/Schematics>