Mini-RC CAR BOM

No.	Component	Quantity	Description	Status
1	ESP32-C3 Supermini	1	Main controller (Wi-Fi + Bluetooth)	In stock
2	DRV8833 (Motor Driver, SOP-16)	1	Dual H-bridge for brushed motors	Ordered
3	SG90 Servo Motor	1	For steering	Not ordered
4	Coreless Brushed Motors (716)	2	Drive motors with propellers	Not ordered
5	PS5 Controller	1	For wireless control via Bluetooth	In stock
6	LiPo Battery (1S or 2S)	1	3.7V 3000 mAH	Not ordered
7	TP4056 SOP-8	1	USB charging IC	
8	DW01	1	Battery protection controller IC	
9	8205A	1	Duel MosFETs for disconnecting load/charged	
10	MT3608 Boost Converter IC	1	Boost 3.7V to 5V	Ordered
11	Inductor	1	4.7 µH – 10 µH, ≥1.5A	Not ordered
12	Schottky Diode (1N5819)	1	For boost converter	Not ordered
13	Input Capacitor (CIN)	1	22–47 µF ceramic/electrolytic	Not ordered
14	Output Capacitor (COUT)	1	47–100 µF	Ordered
15	Feedback Resistor R1	1	33kΩ to set 5.3V output	Ordered
16	Feedback Resistor R2	1	10kΩ to set 5.3V output	Ordered
17	Ceramic Capacitors	5	0.1 µF, 1 µF, 10 µF for decoupling	Ordered
18	Electrolytic Capacitors	3	100 µF, 220 µF, 470 µF @ 16–25V	Not ordered
19	LED + Resistor	1	Optional debug indicator	Ordered
20	Chassis Base	1	3D-printed or plastic base	Not ordered
21	Wheels	4	Match motor shaft type	Not ordered
22	Motor Mounts	4	To hold 716 motors	Not ordered
23	Screws, Nuts, Spacers	1	M2–M3 assorted	Not ordered
24	Silicone Wire (22–28 AWG)	1	Power and signal lines	In stock
25	Power Switch	1	Main ON/OFF	In stock
26	Battery Holder (Optional)	1	For 18650 or pouch	
27	Ultrasonic Sensor (HC-SR04)	1	Obstacle detection	
28	MPU6050 IMU	1	Gyroscope and Accelerometer	In stock
29	OLED Display (I2C)	1	For status/debug info	In stock