Item	Content	Remarks
Product Photo		
SKU	**P1010132**	
Product ID (EAN # or UPC #)	6928819512115	
Brand Name	**makeblock**	
Product Name	mBot2	
Category	Kits	
Product Description	With a PBL-based design, mBot2 blends metal parts, powerful hardware, block-based coding and Python coding into one single robot. It features a brand new AI-powered programmable control board, high-precision encoder motors and a newly-designed sensor system. Students learn more about computer & sicence, IoT, AI, block-based coding and Python as they are designing and assembling their robots. The mBot2 kit is designed for teachers and students of upper elementary grades and high schools to teach and learn coding, science & tech and robotics. mBot2 is ready to use right out of the box thanks to its straightforward design. And it has great extension capabilities so it can connect to extension modules and metal parts to fit into different educational settings.	
Key Product Features 1-5	CyberPi integrates a full color display, speaker, microphone, light sensor, gyroscope, LED strips and more into one device; the in-built Wi-Fi + Bluetooth module allows for connection to the internet so it's empowered with some great AI and IoT functionalities, such as speech recognition, voice synthesis, account cloud broadcast, LAN broadcast and uploading data to Google Sheet over the internet.	
	mBot2 Shield features an in-built rechargeable li-ion battery (2500mAh), two ports for encoder motors, two ports for dc motors and four ports for servos. Some of the servo ports can connect to LED strips, Arduino analog/digital sensors. mBot2 is thusly fully prepared for students and teachers who may have special needs for motor drivers in terms of amount and type.	
	The USB Type-C Cable connects CyberPi to the software for coding or to the shield for providing power.	
	Ultrasonic Sensor 2 owns 8 dazzling ambient lights. So it can convey more subtle emotions at the same time while measuring distance precisely. Its fully injection-molded casing provides better protection for the module.	
	Quad RGB Sensor can detect lines and colors at the same time. And its quad channel design makes precise detection of intersections possible. Its ambient lights help reduce the false identification rate. The fully injection-molded casing provides better protection for the module.	
	180 Optical Encoder Motor comes with 1.5Kg·cm torque, a speed of 200RPM and detection accuracy of 1°, delivering stable mechanical power to the robot.	

Specifications (Optional)	1. Mast Control CyberPi: specially designed for AI and IoT education, and supports Python for better educational experience 01) Processor performance: 240MHz 02) ROM: 448KB 03) SRAM: 520KB 04) Processor core: dual-core Xtensa 32-bit LX6 05) SPI Flash: 8MB 06) Multithreading: support 07) Number of programs: up to 8 08) Python: support Live and Upload modes 09) Communication: Bluetooth +WiFi 10) Onboard sensors: light sensor, microphone (recordable, with sound-sensor-like functionality), gyroscope, accelerometer 11)Onboard output: 1.44-inch full color display 2. Shield Based on the master control, with rechargeable li-ion battery 01) Battery capacity: 2500mAh 02) Discharge rage: 3C 03) Power rating: 27.75W 04) Number of encoder motors ports: 2 05) Number of DC motors ports: 2 06) Number of servo ports: 4 07) Number of LED strip compatible ports: 2 (share port with the servo port) 08) Number of Arduino compatible ports: 2 (share port with the servo port) 09) Number of electronic extension modules supported: no limit, recommended for up to 10 3. Ultrasonic Sensor 2: 01) Casing: plastic 02) in-built chip: yes 03) Number of ambient lights: 8 4. Quad RGB Sensor Quad RGB Sensor uses visible lights for fill lights, which significantly enhances its anti-interference ability to ambient light and enables color recognition while detecting lines. The ambient light calibration function also reduces the interference of ambient light on its line detection performance. 01) Casing: plastic 02) Number of line-following sensors: 4 03) Number of color sensors: 4 (embedded in line-following sensors) 04) Number of light sensors: 4 (embedded in line-following sensors) 05) Fill light: visible light as the fill light 06) Has ambient light calibration: yes	
Packing Method	Box Packing	
Package Dimension Height/Width/Length	187.5X102.5X224mm	
	7.38X4.04X8.82inch	
Product Dimension Height/Width/Length	175X130X93mm	
	6.89X5.12X3.66inch	
Net Weight	570 g	
	20.11 oz	
Gross Weight	1011 g	
	35.66 oz	
Remote Control	No	
Battery	Yes	
Certificates	\	
Color	☐ Black	
	☐ Blue	
	☐ Brown	
	☐ Copper	
	☐ Cream	
	☐ Gold	
	☐ Green	
	☐ Grey	
	☑ Multi-colored	
	☐ Orange	
	☐ Pink	
	☐ Purple	
	☐ Red	
	☐ Silver	
	☐ White	
	☐ Yellow	

	☐ Transparent	

Part List (Qty. x Part Name)			
1×CyberPi	1×mBot2 Shield	1×USB Cable (type-C)	1×Ultrasonic Sensor2
1×Chassis	1×Quad RGB Sensor	2×Encoder motor	2×Motor cable
2×Wheel hub	4×M2.5*12mm Screw	2×Slick tyre	1×Mini Wheel
1×Screwdriver	1×Line-following track map	2×mBuild cable (10cm)	1×mBuild cable (20cm)
6×M4*25mm Screw	6×M4*14mm Screw	6×M4*8mm Screw	