

Sensors

Sensor	Description	Application
MQ-5 Gas Sensor	sensitive for LPG, natural gas, coal gas	gas leakage detector
Color Sensor	detects static color	sorting by color, color matching
Flame Sensor	sensitive to flame spectrum	fire detection, fire fighting robot, fire alarm
Hall Sensor	49E hall sensor	motor speed measurement, object position detection
Infrared Reflective Sensor	reflective infrared Transceiver	robot path tracking, obstacle-avoiding car, pipeline counter
Laser Sensor	laser sensor	obstacle detection, pipeline counter, smart robot
Moisture Sensor	fork-like soil moisture sensor	auto watering system, flowerpot soil moisture detection
Rotation Sensor	detects clockwise/anti-clockwise rotations	positioning in Industrial Controls
Sound Sensor	onboard audio power amplifier LM386	ambient sound detection, sound level detection
Temperature-Humidity Sensor	DHT11 temperature and humidity sensor	ambient temperature and humidity detection
Tilt Sensor	detects shake signal	shake detection, guard alarm, smart car
UV Sensor	ultraviolet sensor	ultraviolet tester, outdoor ultraviolet detector, germicidal lamp
UART GPS NEO-6M	UART GPS Module	navigation, positioning...
Liquid Level Sensor	detects liquid level	water level alarm

Boards & Communication modules

Component	Description
UNO PLUS Package A (Arduino compatible)	Development board compatible with the Arduino UNO R3
DM164138	LoRa Mote,mini USB B,PIC18LF25K50,OLED
RN-2483-PICTAIL	LoRa Technology PICTail Plus Daughter Board
LoRa click	LoRa modul,RN2483,3.3/5V
PG164130 PICKIT3	PICKit 3 in circuit debugger/programmer

Other miscellaneous material such as jumper wires, solderless files, crimping tools, solders, diodes or cables will be available as well.

Amount of some items is limited, therefore CRA IoT Hackathon attendants are strongly advised to bring their own HW or tools as well.