

# Mauto IOT

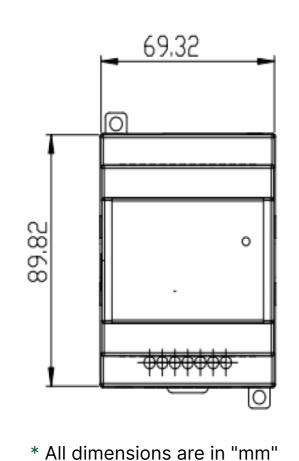
## 4G/WLAN/WiFi/Ethernet/LoraWan

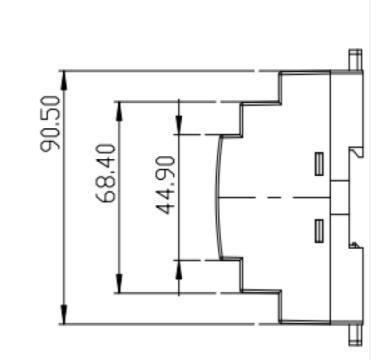
#### **Product Description**

Mauto IOT is a din-rail gateway that allows to monitor and control any hardware or controller via RS485 modbus through 4G, WiFi, WLAN and Ethernet connectivities into Mauto web and app dashboards.

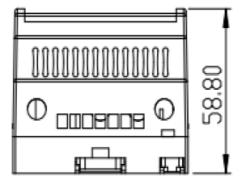
#### **Features**

- 12-30V power supply range
- 4G-WLAN-WiFi-Ethernet
- · HTTP, MQTT
- · Access point WiFi-Wlan configuration
- OTA self upgrade

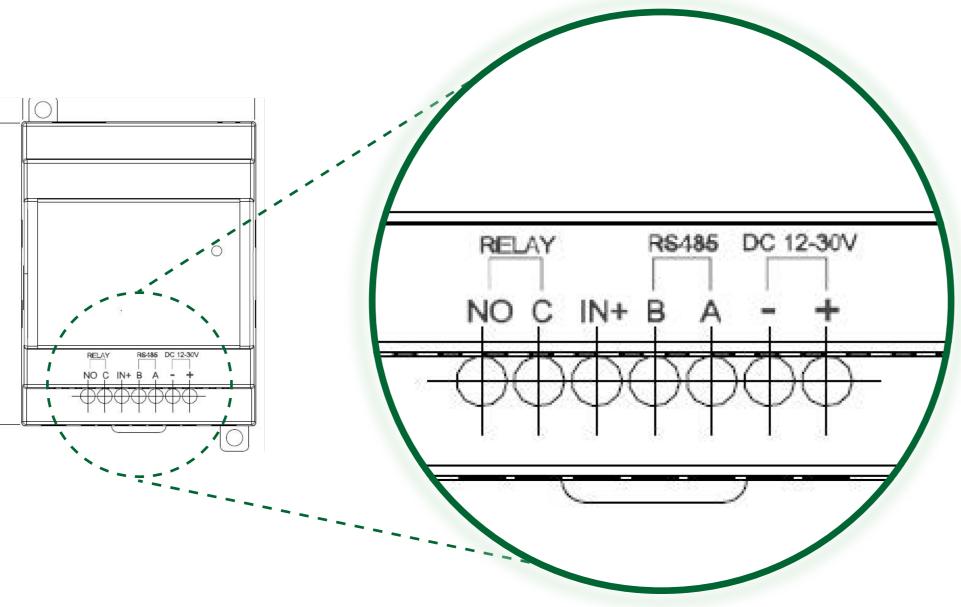








## **Connection Diagram**



- Supply: 12-30 VDC taken to the battery of the Gen or external power supply
- RS485(RTU): Communication to any rs485 device
- IN+: Digital Input 12 ->30Vdc can be connected as a feedback
- Relay: can handle(12A 250V)

External modules can be added to this gateway throughout Modbus (RTU) to increase the number of Digital inputs(DC or AC), in addition to the external relays also. all these features can be programmed through the GW\_Configuration\_Page



## **Product Parameters**

Frequency Bands	
LTE FDD	B1/3/7/8/20/38/40/41
LTE TDD	B38/39/40/41
WCDMA	B1/5/8

Software
Mauto Web and App dashboards .
Dynamic EndPoints from firmware configuration for third parties integration.

TX Power	
GSM:900MHz	33dBm±2dB
GSM:1800MHz	30dBm±2dB
FDD:B1/3/7/8/20	23dBm±2dB

Protocol
TCP /UDP/MQTT/HTTP transparent transmission

Rx Sensitivity	
GSM:900MHz	-109.5dBm
GSM:1800MHz	-108dBm
FDD:B1/3/20	-98dBm
FDD:B7	-97.5dBm
FDD:B8	-98.5dBm

AP mode	
Socket Distribution Protocol	

FDD:B7	-97.5dBm
FDD:B8	-98.5dBm
Transmission S	peed

10MbpsDL/5Mbps UL

(multi-slot class 12)

85.6KbpsDL/85.6KbpsUL

GPRS:

LTE FDD Rel.13

Hardware Characteristic	Hardware Characteristics				
POWER	12~30V				
Dimensions	35.2mm x 8 6mm x81.68mm				
Operating temperature	-30°C~+75°C				
Expansion temperature	-40°C~+85°C				
Storage temperature	-40°C~+85°C				
Relative Humidity	5%~95%(non- condensing)				

Physical Interfaces	
UART	RS485 (3PIN)
USIM	3.0V/1.8V, Standard SIM
RF	SMA
Indicators	PWR,WORK,NET
Reload	Button
Installation	DIN-rail mounting



## **Specifications**

Name	GW101	GW102	GW103	GW104	GW104
connection	WIFI, WLAN	WIFI, WLAN	WIFI, WLAN	WIFI, WLAN	WIFI, WLAN
WIFI Speed	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)
4g characteristics	_	_	(FDD LTE):B1,B3,B5,B 7,B8,B20 (TDD LTE):B38,B39,B 40,B41 (WCDMA):B1,B 5,B8	(FDD LTE):B1,B3,B5,B 7,B8,B20 (TDD LTE):B38,B39,B 40,B41 (WCDMA):B1,B 5,B8	_
Antenna connector	SMA	SMA	SMA	SMA	SMA
Relay	PWR,WORK,NET	PWR,WORK,NET	PWR,WORK,NET	PWR,WORK,NET	PWR,WORK,NET
IN+	Button	Button	Button	Button	Button
protocols	Modbus-RTU Modbus-TCP BACnet IP/ RS485	Modbus-RTU Modbus-TCP BACnet IP/ RS485	Modbus-RTU Modbus-TCP BACnet IP/ RS485	Modbus-RTU Modbus-TCP BACnet IP/ RS485	Modbus-RTU Modbus-TCP BACnet IP/ RS485
	https, mqtt	https, mqtt	https, mqtt	https, mqtt	https, mqtt
Din rail	yes	yes	yes	yes	yes
Dimensions (L_W_H)	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm
Operating Voltage	12-30VDC	12-30VDC	12-30VDC	12-30VDC	12-30VDC
Power consumption in (W)	2.4W	3W	5W	6W	2.4W
Housing	Mold Plastic	Mold Plastic	Mold Plastic	Mold Plastic	Mold Plastic
Terminals	V+, Gnd, A, B, IN+, NO	V+, Gnd, A, B, IN+, NO	V+, Gnd, A, B, IN+, NO	V+, Gnd, A, B, IN+, NO	V+, Gnd, A, B, IN+, NO

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Name	GW105	GW106	GW107	GW108	GW108
connection	WIFI, WLAN	WIFI, WLAN, ETHERNET	WIFI, WLAN, 4G	WIFI, WLAN, ETHERNET,4G	WIFI, WLAN, LoraWan
WIFI Speed	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)
4g characteristics	-	-	(FDD LTE):B1,B3,B5,B 7,B8,B20 (TDD LTE):B38,B39, B40,B41 (WCDMA):B1, B5,B8	(FDD LTE):B1,B3,B5,B 7,B8,B20 (TDD LTE):B38,B39, B40,B41 (WCDMA):B1, B5,B8	_
Antenna connector	SMA FEMALE	SMA FEMALE	2*SMA FEMALE (WIFI, 4G)	2*SMA FEMALE (WIFI, 4G)	SMA FEMALE
Relay	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)
IN+	12-24Vdc	12-24Vdc	12-24Vdc	12-24Vdc	12-24Vdc
protocols	M-BUS https, mqtt	M-BUS https, mqtt	M-BUS https, mqtt	M-BUS https, mqtt	M-BUS https, mqtt
Din rail	yes	yes	yes	yes	yes
Dimensions (L_W_H)	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm
Operating Voltage	12-30VDC	12-30VDC	12-30VDC	12-30VDC	12-30VDC
Power consumption in (W)	2.4W	3W	5W	6W	2.4W
Housing	Mold Plastic	Mold Plastic	Mold Plastic	Mold Plastic	Mold Plastic
Terminals	V+, Gnd, +, -, IN+, NO	V+, Gnd, +, -, IN+, NO	V+, Gnd, +, -, IN+, NO	V+, Gnd, +, -, IN+, NO	V+, Gnd, +, -, IN+, NO



Name	GW109	GW110	GW111	GW112	GW112
connection	WIFI, WLAN	WIFI, WLAN, ETHERNET	WIFI, WLAN, 4G	WIFI, WLAN, ETHERNET,4G	WIFI, WLAN, LoraWan
WIFI Speed	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)
4g characteristics	_	-	(FDD LTE):B1,B3,B5,B7, B8,B20 (TDD LTE):B38,B39, B40,B41 (WCDMA):B1, B5,B8	(FDD LTE):B1,B3,B5,B7, B8,B20 (TDD LTE):B38,B39, B40,B41 (WCDMA):B1, B5,B8	-
Antenna connector	SMA FEMALE	SMA FEMALE	2*SMA FEMALE (WIFI, 4G)	2*SMA FEMALE (WIFI, 4G)	SMA FEMALE
Relay	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)
IN+	12-24Vdc	12-24Vdc	12-24Vdc	12-24Vdc	12-24Vdc
protocols	can-bus https, mqtt	can-bus https, mqtt	can-bus https, mqtt	can-bus https, mqtt	can-bus https, mqtt
Din rail	yes	yes	yes	yes	yes
Dimensions (L_W_H)	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm
Operating Voltage	12-30VDC	12-30VDC	12-30VDC	12-30VDC	12-30VDC
Power consumption in (W)	2.4W	3W	5W	6W	2.4W
Housing	Mold Plastic	Mold Plastic	Mold Plastic	Mold Plastic	Mold Plastic
Terminals	V+, Gnd, H, L, IN+, NO	V+, Gnd, H, L, IN+, NO	V+, Gnd, H, L, IN+, NO	V+, Gnd, H, L, IN+, NO	V+, Gnd, H, L, IN+, NO



Name	GW113	GW114	GW115	GW116	GW116
connection	WIFI, WLAN	WIFI, WLAN, ETHERNET	WIFI, WLAN, 4G	WIFI, WLAN, ETHERNET,4G	WIFI, WLAN, LoraWan
WIFI Speed	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)
4g characteristics	-	-	(FDD LTE):B1,B3,B5,B7, B8,B20 (TDD LTE):B38,B39, B40,B41 (WCDMA):B1, B5,B8	(FDD LTE):B1,B3,B5,B7, B8,B20 (TDD LTE):B38,B39, B40,B41 (WCDMA):B1, B5,B8	-
Antenna connector	SMA FEMALE	SMA FEMALE	2*SMA FEMALE (WIFI, 4G)	2*SMA FEMALE (WIFI, 4G)	SMA FEMALE
Relay	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)
IN+	12-24Vdc	12-24Vdc	12-24Vdc	12-24Vdc	12-24Vdc
protocols	M-BUS can-bus Modbus-RTU Modbus-TCP BACnet IP/ RS485 https, mqt	M-BUS can-bus Modbus-RTU Modbus-TCP BACnet IP/ RS485 https, mqt	M-BUS can-bus Modbus-RTU Modbus-TCP BACnet IP/ RS485 https, mqt	M-BUS can-bus Modbus-RTU Modbus-TCP BACnet IP/ RS485 https, mqt	M-BUS can-bus Modbus-RTU Modbus-TCP BACnet IP/ RS485 https, mqt
Din rail	yes	yes	yes	yes	yes
Dimensions (L_W_H)	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm
Operating Voltage	12-30VDC	12-30VDC	12-30VDC	12-30VDC	12-30VDC
Power consumption in (W)	2.4W	3W	5W	6W	2.4W
Housing	Mold Plastic	Mold Plastic	Mold Plastic	Mold Plastic	Mold Plastic
Terminals	V+, Gnd, A H +, B L -, IN+, NO	V+, Gnd, A H +, B L -, IN+, NO	V+, Gnd, A H +, B L -, IN+, NO	V+, Gnd, A H +, B L -, IN+, NO	V+, Gnd, A H +, B L -, IN+, NO

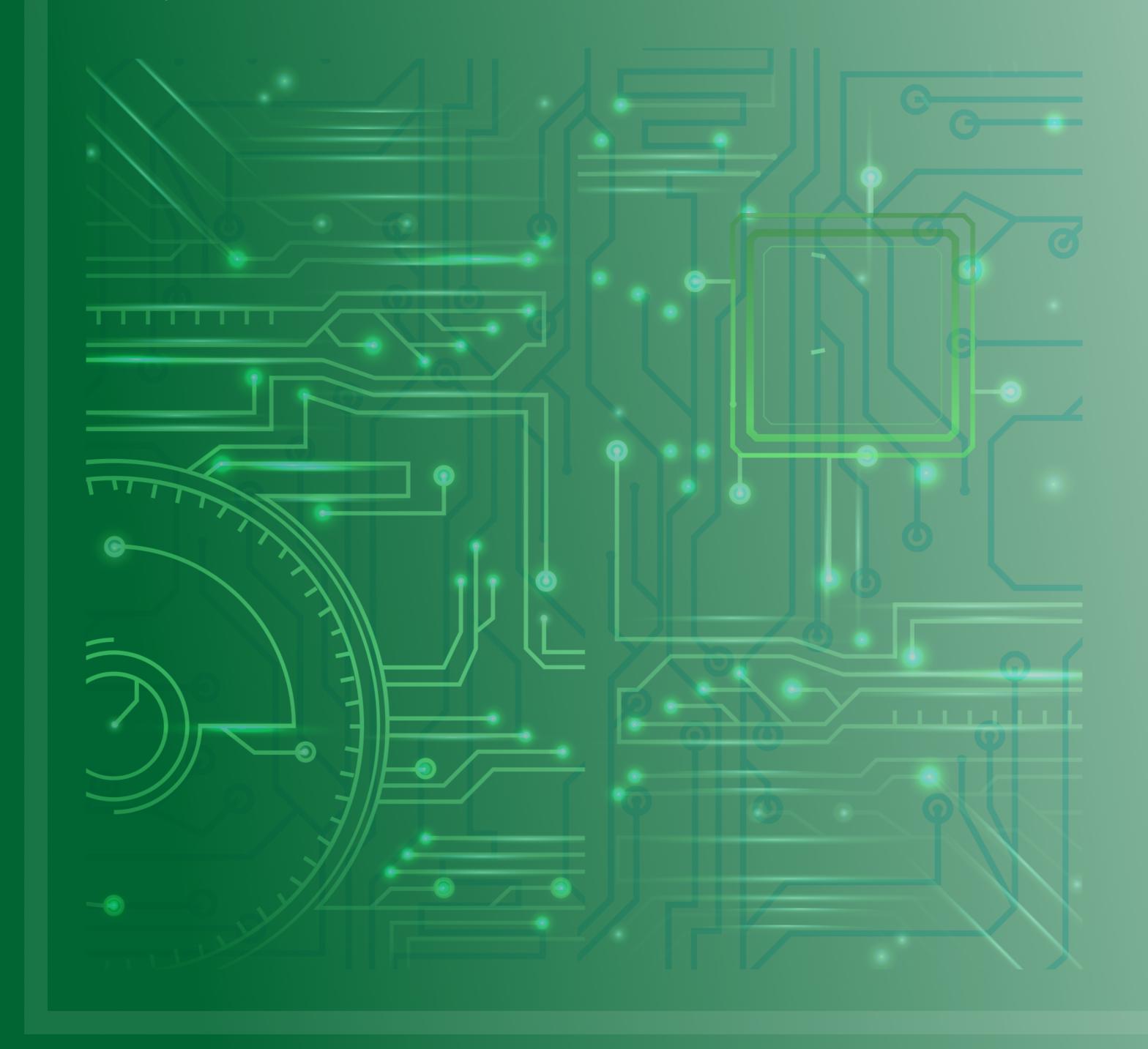


Name	GW117	GW118	GW118
connection	WIFI, WLAN	WIFI, WLAN, 4G	WIFI, WLAN, LoraWan
WIFI Speed	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)	50-100 Mbps (6.25- 12.5MB/s)
4g characteristics	-	(FDD LTE):B1,B3,B5,B7, B8,B20 (TDD LTE):B38,B39, B40,B41 (WCDMA):B1, B5,B8	-
Antenna connector	SMA FEMALE	2*SMA FEMALE (WIFI, 4G)	SMA FEMALE
Relay	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)	5VDC_16A 2 terminals: (NO, C)
IN+	12-24Vdc	12-24Vdc	12-24Vdc
protocols	can-bus Modbus-RTU Modbus-TCP	can-bus Modbus-RTU Modbus-TCP	can-bus Modbus-RTU Modbus-TCP
	GPS	GPS	GPS
	https, mqtt	https, mqtt	https, mqtt
Din rail	yes	yes	yes
Dimensions (L_W_H)	5.3x9x5.3 cm	5.3x9x5.3 cm	5.3x9x5.3 cm
Operating Voltage	12-30VDC	12-30VDC	12-30VDC
Power consumption in (W)	2.4W	5W	2.4W
Housing	Mold Plastic	Mold Plastic	Mold Plastic
Terminals	V+, Gnd, A H , B L , IN+, NO	V+, Gnd, A H , B L , IN+, NO	V+, Gnd, A H , B L , IN+, NO



# Tailoring CUSTOM SOLUTIONS from PILOT RUN to MASS PRODUCTION

Our team of designers, electronic, electrical and mechanical engineers, developers, project and quality managers will cover the processes of product design, PCB building, PCBA assembly, die-casting, plastic moulding, plastic injection, hardware coding, software and mobile app development to help successful traders become manufacturers of their private brand made in their own countries.





## **WORK FLOW**

Since all products consist on electronic and mechanical parts, our team will work from the industrial design, electrical and mechanical engineering to prototyping and mass production.

## Product Design

Our designers will combine functionality and aesthetic to make the product appealing and customer demandable and friendly.

## **MECHANICAL ENGINEERING**

we engage to ensure your product operates nicely with rich manufacturing experience

## **S** ELECTRICAL ENGINEERING

with updated know-how in the latest technology in the electronics industry, our engineers will deploy their experience to develop advanced IOT products.

## FIRMWARE DEVELOPMENT:

Our hardware-coding programmers will write and upload the most functional code in your electronic products.

## MOBILE APP DEVELOPMENT

Whether iOS or Android mobile applications, our experienced programmers will design and develop the most intuitive and user-friendly IOT solutions.

## PROTOTYPING AND CERTIFICATION

This is the most important stage in which we transform your idea into a real product that you can start showing to potential customers or investors and apply to highly reputed laboratories to get the necessary certifications for each market.

## TOOLING AND MOULDING:

We design and select the necessary tools and moulds to ensure the most efficient and highest quality of manufacturing and assembly.

## MASS PRODUCTION

After an extensive and precise test on the prototype, we provide supervision and quality control on your multiple production lines.