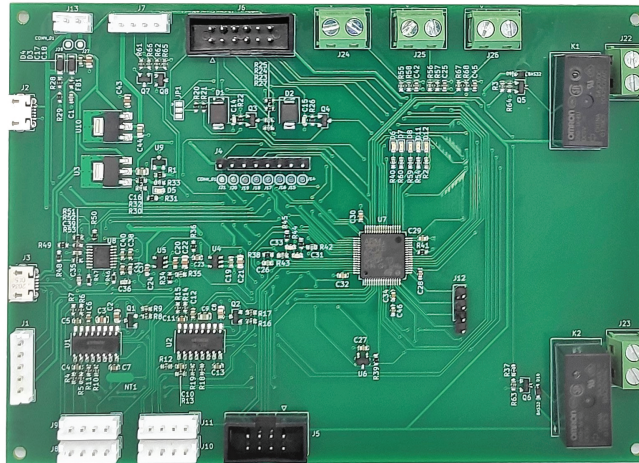


## IOT BOARD FOR ANDROID INTERFACE

### Sensor Interface and Thermostat system controlled by Android device



Mondo Novo Electronics is an R&D and product development company focused on new technologies and innovations. The Internet Of Things and Smart Device units develop solutions for professional applications.

#### APPLICATIONS

- Module for motion sensor control, load cells, thermostat applications, measurement applications, robotics applications, smart agriculture
- Smart device board programmable with Arduino
- Host or device mode - Android device in OTG mode by USB 2.0 FS
- Power supply management for master/slave configuration in OTG mode
- Load cells amplifier for 4 load cells interface
- Encoder and caliper interface
- 2 AC Load switches using SPST relays controlled by MCU

#### FEATURES

POWER:	max 5 V (+/- 10%), max 1A
CPU:	STM32F100RCT6B
INTERFACE:	1* micro USB + 5 PIN for serial communication 1* micro USB + 2 PIN for power supply 1* I2C 1* SPI 1* UART 4* LOAD CELLS 3* NTC 2* Relay

ID. MN001014

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## DESCRIPTION

The board has been developed to interface sensors with an Android device. By the USB port the Android mobile or tablet or pc set the device as slave by the OTG mode.

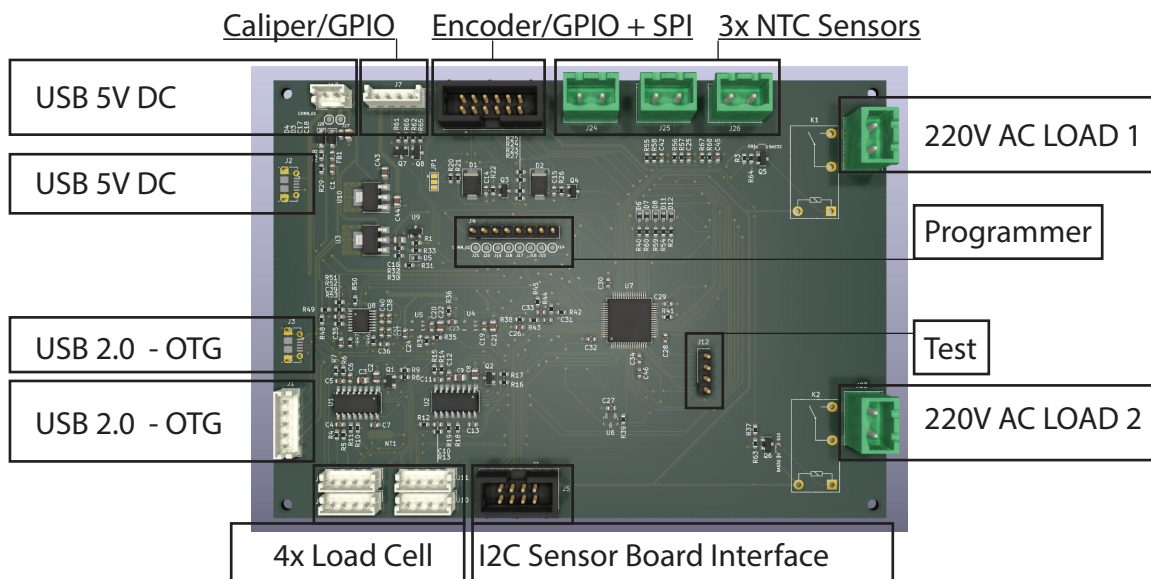
The board can be powered both from the Android device or by its power supply at 5V and borderline cases are considered. The configuration can be set as slave by device and master by host wherever used usb devices.

The connectors on the board permit to interface sensors by I2C signals, NTC temperature sensors, encoder and load cells for several use cases, SPI interface is also available.

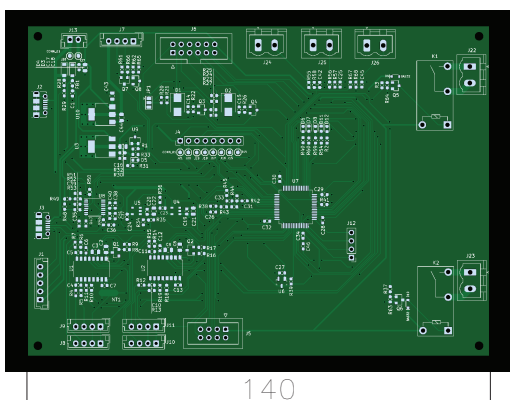
The module is powered by the famous STM32F100 serie and the firmware can be customized upon request. The CPU can be also programmed by Arduino in order to simplify testing and programming.

The cases can be purchased separately upon requests. 3D design is available.

## INTERFACE



## DIMENSIONS AND WIRING



- 1\* micro USB (communication)
  - 1\* USB power supply
  - 1\* I2C
  - 1\* SPI
  - 1\* Caliper/GPIO
  - 4\* LOAD CELLS
  - 3\* NTC
  - 2\* Relay
  - 1\* Programmer
  - 1\* Programmer
  - 1\* Test
- micro B and B5B-EH-A(LF)(SN)
  - micro B and B2B-EH-A(LF)(SN)
  - IDC-Header\_2x06\_P2.54mm\_Verical
  - IDC-Header\_2x04\_P2.54mm\_Verical
  - B4B-EH-A(LF)(SN)
  - B4B-EH-A(LF)(SN)
  - screw connectors KF127 5.0MM 2P
  - screw connectors KF127 5.0MM 2P
  - PinHeader\_1x08\_P2.54mm\_Verical
  - flat 8pin connector
  - PinHeader\_1x04\_P2.54mm\_Verical

- cables and connectors are available

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## REVISION HISTORY

REV.	DATE	DESCRIPTION
0	29/11/2020	

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