n-Blocks PRO: Modular IoT

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## n-Blocks PRO: Modular IoT

n-Blocks PRO is a modular sensing, processing and communication hardware and firmware platform for the next generation Internet of Things (IoT) applications, developed in Nimbus centre / Cork Institute Technology / Ireland.

The n-Blocks PRO hardware modules have standardized form factor and connectors pinout. Each module is equipped with embedded processing, sensing technology, and wireless/wired communication capabilities. The n-Blocks Firmware includes an SDK with open APIs to take advantage of every feature of the hardware.

The n-Blocks PRO has a modular design with small form factor and ultra-low power consumption. It comes with 32-bit-ARM processor. It is a plug & play hardware platform comprising of sensors and communication modules. The user can choose from the various combinations of power, performance and energy harvesting boards to enable features such as extended battery life. In short, **n-Blocks PRO** is all about taking the Internet of Things to the next level.
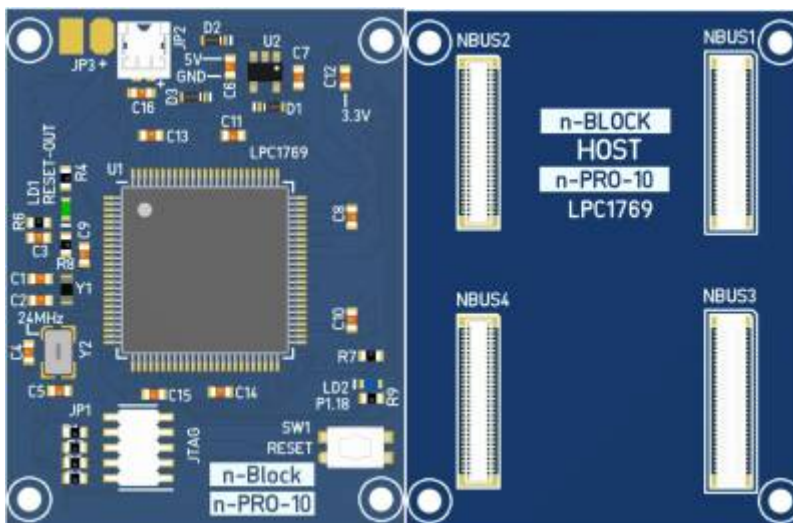
Key Features

Modular IoT system prototyping platform suite of components

- Host and Peripheral boards 'plug together' to implement the use case
- Clean and Tidy system, no interconnection cables
- Many IoT use cases can be delivered by pluging together a Host and Sensor Peripheral Board

Host boards:CPU boards mostly focused on ARM-Cortex-M & A Microcontrollers

- Ultra Low Power and Wireless
- LoRa, LoRaWAN, BLE and more
- STM32 Cortex M0+, M3, M4, M7
- Nordic Cortex M4
- NXP Cortex M0, M3
- Linux supported with a Cortex A8 n-Block
- All Host boards have common pinout: 240 pins in 4 low profile 60 pin connectors

Peripheral boards

- Ultra Low Power Sensing
- Application specific motherboards (3D printer, Industrial control...)
- Display boards
- Extended Wireless Sensor Network functionality
- Actuators and Motor controls

Development

- Breakout and prototyping
- Mbed-enable
- Ultra Low Power development support

Expandable System

- Easy to create new Host or Peripheral boards
- Mechanical and connectivity Template

n-Blocks

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