



NIRYO
HUMAN - MOTION - ROBOT

Ned²

**SIX-AXIS
OPEN-SOURCE
COBOT**



EDUCATION • RESEARCH • INDUSTRY 4.0

A COMPLETE ECOSYSTEM

EXPERIMENT

Thanks to the Vision Set:

- Set your own workspace thanks to the landmarks and the calibration tip
- Develop your skills in **Artificial Intelligence, Image Processing and Machine Learning**
- Improve the **prototyping of your production lines**
- **Optimize your Industry 4.0 oriented processes**



LEARN

Ned2, the open-source collaborative robot for the learning and the reproduction of advanced Industry 4.0 oriented processes:

- Six-axis cobot
- Aluminum structure
- Stepper equipped with the Silent Stepper technology
- Based on Ubuntu 18.04
- ROS Melodic
- Raspberry PI 4



ARM V8
1.5 GHz



4Gb RAM
LPDDR4



USB 3.0
up to 5 Gb/s



Wi-Fi 5
802.11 g/g/n/ac

Easier to use than ever thanks to its improved Human-Machine Interface:

- LED Ring
- Speakers
- Control panel

PROTOTYPE

Prototype production lines inspired by the Industry 4.0 thanks to our **Bundle Conveyor Belt (v2)**, composed of:

- A Conveyor Belt
- 6 pawns of different shapes and colors
- A slope
- A end-stopper
- An Infrared sensor

Its metallic structure has been rethought in order to allow the users to focus on their learning.



OUR ACCESSORIES

ADAPTIVE GRIPPER

Ideal to grasp non-standard objects.



LARGE GRIPPER

Ideal to grasp large objects or smaller ones, at a bigger distance.



VACUUM PUMP

Allows to grasp objects with a plain and non-porous surface



ELECTRO-MAGNET

Allows to easily catch one or several metallic pieces such as screws.



ONLINE DOCUMENTATION

Get a **free access to documented resources** on our website docs.niryo.com in order to apprehend, in the best way, your robot and its use.

- Complete documentation
- Tutorials
- Applications examples...

This provides you therefore with complete resources to allow you to deepen your learning of **robotics**, the **different programming languages** (Blockly, Python, ROS, C++), **simulation**, **image processing**, and **much more**.

Teacher?

Offer your students the opportunity to **learn at their own pace**, by **exploring the different options at their disposal**.



LANGUAGES & PROTOCOLS



ROS

OS designed for **robotics**, it allows you to use **standardized functions**, with different languages such as **Python** and **C++**.



PYTHON

Multi-platforms, **powerful** and **versatile** programming language.



MATLAB

Allows to analyze the difference between **actual** and **theoretical trajectory curves**.



MODBUS

Communication protocol that is essential in many **industrial** settings.

EASY PROGRAMMING WITH NIRYO STUDIO

With **Niryo Studio**, our **free desktop software**, discover programming through **Blockly**, a Google library allowing to **control your robot in a visual and intuitive way**.

No programming knowledge required!

Simply drag the block of your choice and drop it inside your workspace.

Assemble several blocks and press the "Play" button to launch your sequence.

