The Dobot Magician from IntegrityRobotics at your campus

Nagpur | 31.05.2018 |

IntegrityRobotics' Team

What is it?

Product Family

DOBOT Magician has many ready applications available by its family products, and there will be more. They can be applied to educational topics like industrial 4.0, intelligent manufacturing, intelligent logistics, artificial intelligence, big data, etc.

DOBOT Magician - Basic Plan

Provides basic functions of a robot arm to experience
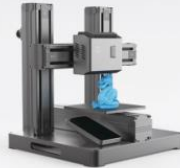
DOBOT Magician - Education Plan

Includes all functions of Basic Plan and advanced functions : laser, Bluetooth connection, wifi connection, Joystick control.

DOBOT Magician - Conveyer Belt Kit

Build an intelligent mini-production-line with DOBOT Magician, color sorting and sensor functions included.

DOBOT MOOZ

Multi-functional 3D printer with 3D printing, laser engraving and CNC.

DOBOT Magician - Visual Kit

Allows you to build a real Visual sorting system with DOBOT Magician. A developer library included to help you build more visual applications with DOBOT.

DOBOT Magician - Linear Rail Kit

Largely extends the working range of DOBOT Magician, ready software function integrated.
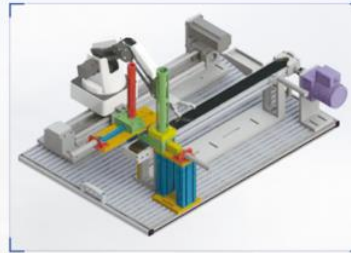
Made for Real factory floor, Practical, Robotic Training

High Standard — DOBOT Magician applies to major international standards like CE, RoHS, ERP, FCC, KC, PSE, TELEC, etc.

Multi-Robot Collaboration — You can control several Dobot Magician by the same device only, which allows Multi-Robot Collaboration.

Cost-Effective — With a fair and reasonable price, DOBOT Magician has **0.2mm** repeatability which can simulate almost all real factory robot applications.

Training Curriculum — Multiple applications and training curriculum available. An open platform for robot education like **Industrial 4.0, Automation**, PLC, etc.

Free Combination — DOBOT Magician is compatible with multiple accessories such as linear rail kit, conveyor belt kit, visual kit, and crawler robot to apply different training projects.

Secondary Development — DOBOT Magician is compatible to develop user applications with its 13 I/O ports, API, released protocols. It can be developed with over 20 programming languages, ROS, PLC, Microcontroller and Arduino.

Hands-on Experience for Everyone — Dobot Magician is low cost, small size, and easy operation, which allows every student to practice on their own. it improves the teaching efficiency dramatically. It can be controlled by Programming, APP, Bluetooth, WiFi, Mouse, Joystick, and more.
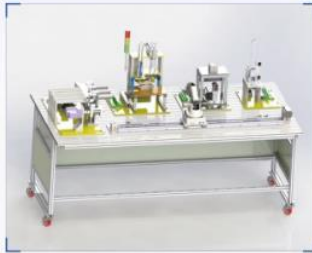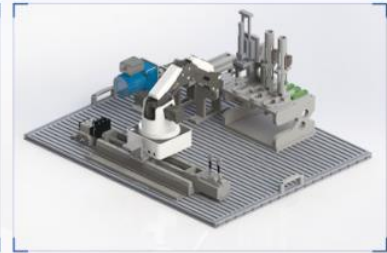

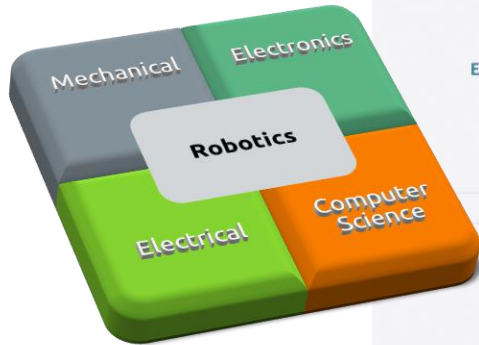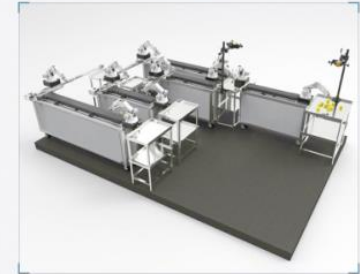| Automatic Production Training | Photoelectric Integration Training | Motion Follow Control System Training | Automated Assembly Line Training |

Wide Applicability for most engineering streams

Applicable Training Topics		
Entry	Basic Programming:	C、C++、JAVA、Python、Blockly、Coding with Arduino、Coding with Scratch
	Understanding of Industrial Robots:	Manipulator pose, kinematics and control
	Understanding on active and passive sensing and feedback control techniques	
	Engineering and Robot Safety	
Basic	Intermediate programming:	Major programing languages、labview、matlab
	Electronic and Electical Measurement Control	
	Mechanical Design Control	
	Embedded System Control	
	CIM(Computer Integrated Manufacturing)	
	Secondary Development	
	Engineering and Robot	
Advanced	Robot Maintainance And Repair	Production Line Simulation
	Robotic Visual System	Aluminum Frame Type, Metal Processing
	Multiple application building	Robotic Competition

Potential Academic Course Matrix

1st Year (All Streams)
- Introduction to Basic Elements of Programming
- Practical usage of Electrical, Laser, Pneumatic, Vacuum systems
- Practical Mechanics through 3D printing

Mechanical
- Actuators
- Production Systems
- Motion Systems (Manipulators & Kinematics)
- Mechatronics
- Additive Manufacturing
- Machine Design

EXTC/Electrical
- Embedded systems
- Control Systems Design
- Image Processing & Vision Systems
- Sensing & feedback
- PLC systems
- Industrie 4.0 systems' design and building

Computers & IT
- Artificial Intelligence
- Python
- Real-life Industrie 4.0 simulation, Cloud computing, remote access
- Image Processing & Vision Systems

Civil/Architecture
- Model Building (3D Printing)

Notable Client References...

6000+ Installations globally

A few in India:
- Ambalika University
- IIT Roorky

VOLKSWAGEN WITH DOBOT

Name: Volkswagen plant simulation and learning factory

Time: September 2017

College Major: Industrial 4.0, Volkswagen academy

Summary:
Volkswagen has made a full production line simulating the real car assembly line, assembling a model bus. In each station, there is detailed screen demonstrating the real situation. Dobot Magician works perfectly in the line. Videos available on Youtube.

- Dobot Magician is integrated with the PLC system.
- Dobot Magician works in multiple stations performing different functions.
- The whole system is also very high tech.

UNIVERSITY OF TECHNOLOGY SYDNEY

Name: Dobot Magician used in multiple teaching subjects as demonstration and students assignments

Time: February 2018

College Major: Mechanical and Mechatronics Engineering major, Centre for Autonomous Systems, Mechatronics & Intelligent Systems Group FEIT

Summary :
Introduction to industrial robotics and the underlying algorithms and mathematics, theoretical and practical understanding on active and passive sensing and feedback control techniques, ability to select and evaluate sensors, process the sensor data, and apply computer-based tools for practical control system design using the sensory information.

TSINGHUA UNIVERSITY WITH DOBOT

Name: Industry 4.0 Intelligent System simulating real production line with sand table

Time: June 2016

College Major: Basic Industrial Training Center

Summary:
The system simulates a typical cutting-edge robot production line with DOBOT Magician.

Bullet points:
- Pick & Place: Dobot Magician performs basic functions of an industrial robot arm, picking and placing.
- Sort: connected with visual system, Dobot Magician sorts by shapes or colors.
- Assembly: DOBOT Magician can accomplish quick assembly in different positions with a conveyor belt kit.

Light Industrial Applications

Industrial/Semi-industrial/Prototyping applications in India:

- Phillips Innovation Centre
- Login2IT
- Ssigma
- L&T

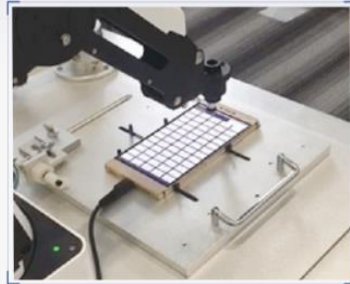Smart Card Detection (Uploading/Download and Sorting)

Gold and Jewelry Weighing and Sorting

Glass Slides Uploading and Downloading (Microscope Assisted)

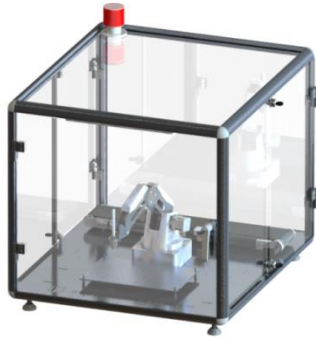Chip Sorting and Testing

Phone Screen and Button Testing

Intelligent Filling System

Robot Spraying

Deployment Concepts

Our Robot Work-cell: The Innovation Lab

Customised training Work-cells

Robot Work-Rooms

IntegrityRobotics
thanks you for the opportunity to serve!

You are welcome at

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