MiniBOT Robot

Unit: mm

Main Features

- EtherCAT-based
- Compact design
- Suitable for education
- Standard 6-axis articulated robot

Contents

- Control cabinet
- Robot control API
- Articulated 6-axis robot
- Open robot controller

Product Overview

EtherCAT Communication

Based on standard EtherCAT communication, MiniBOT provides an expandable distributed control system. It is also a good material for EtherCAT-related training.

Industrial Robot Design

By referring to design of general industrial 6-axis articulated robots, MiniBOT is built in the same concept. Its nude mechanical architecture makes it easy to learn the structure of an industrial robot.

Open Development Environment

MiniBOT comes with a utility tool to directly operate the robot. Robotic control APIs are also provided in Windows platform, so that users can leverage its openness to develop any kind of robot applications.

Specifications

Robot Arm

- Degree of freedom: 6
- Payload: 1kg
- Driving system: EtherCAT close-loop stepper
- Position feedback: incremental encoder
- Operation range: 590mm (maximum)
  - J1: ±175°
  - J2: +110°~ -92°
  - J3: +63°~ -153°
  - J4: ±175°
  - J5: ±92°
  - J6: ±180°
- Repeatability: ±0.12mm
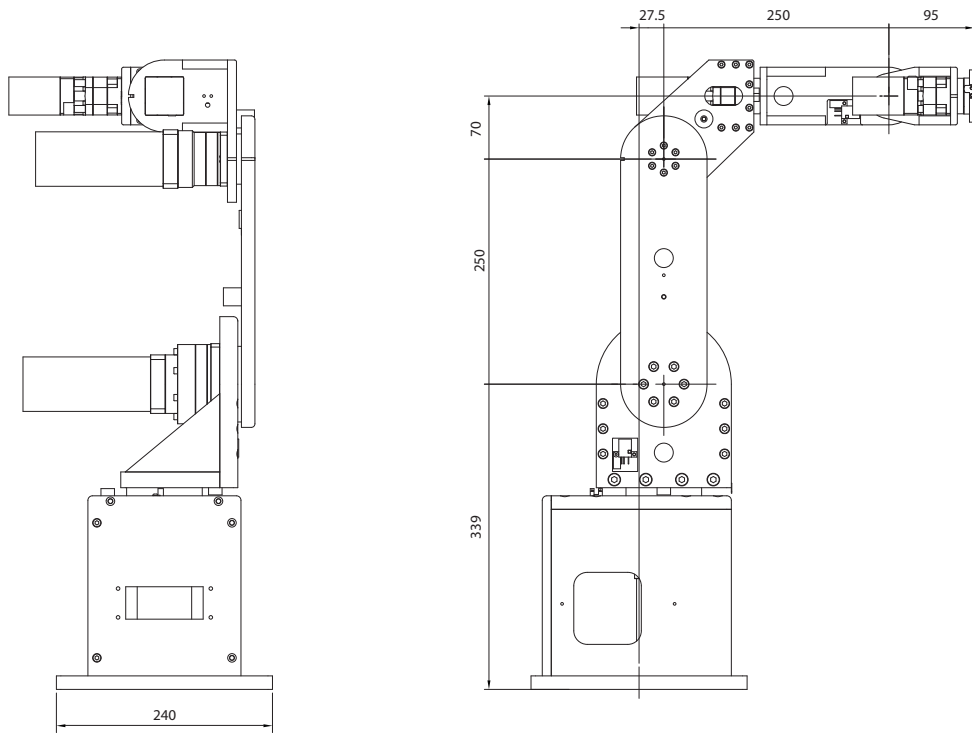- Weight: arm 30kg
- Input voltage: single phase 100~240Vac

Controller

- DI/O: 15-ch DI/16-ch DO (DB37 connector)
- 1 x Intel® GbE LAN port
- 1 x VGA
- 2 x USB 2.0 (external)
- 1 x USB 3.0, 1 x USB 2.0 (inside cabinet)
- 1 x Emergency stop bottom
- Weight: control cabinet 20kg

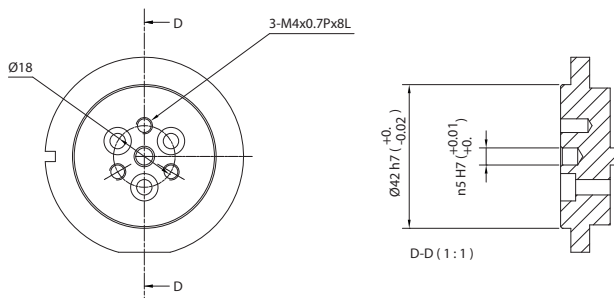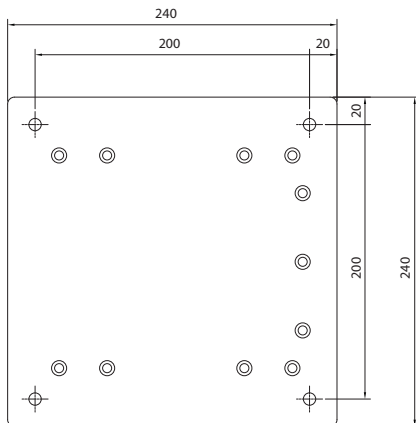**Software**

- NexGRC runtime (robot control runtime)
- NexMotion studio (configuration utility)
- Provide standard robot motion control functions
- Support C\C++, C# and VB.Net for user programming
- OS: WES7

Dimension Drawing

Installation

Ordering Information

Robot Package

- **MiniBOT robot package (P/N: 7900000179X00)**

Optional

- **Robot stand (P/N: 790000180X00)**
  70 x 70 x 78 (cm)

- **Robot stand (P/N: 7900000183X00)**
  80 x 80 x 78 (cm)

- **Gripper package (P/N: 7900000181X00)**

- **Terminal board package (P/N: 7900000182X00)**
  2m and DB-37 terminal board

Last update: 04/16/2018