

# HIWIN HT-B 7th Electric Linear Axis Kit User Guide

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**HIWIN HT-B 7th Electric Linear Axis Kit**



This Quick Start Guide will get you started with your HIWIN 7th Axis Kit for UR. We do advise to read the user-manuals before installation.

## **What is supplied**

### **HIWIN linear axis HT-B/-S**

- With belt or ballscrew drive
- Limit switches
- Possibly gearbox
- Robot adapter
- Cable chain
- Cables
- Instruction manuals for HIWIN Linear Axis HT-B/S
- Instruction manual for HIWIN Adapters for Robot Axes

### **Linear Motion Kit**

- Control Box
- SEW servo motor & Drive
- USB with URCap software
- Instruction manuals for Linear Motion Kit (LMK)

## **LMK updates**

To get the latest updates for the Linear Motion Kit:

- Visit [www.cobotracks.com/LMK](http://www.cobotracks.com/LMK)
- Download the latest LMK software and user manual.

## Assembly

### Mechanical

- Mount the HIWIN Linear Axis
- Mount the HIWIN Adapter for Robot Axes on the HIWIN Linear Axis
- Attach the motor to the gearbox at the HIWIN Linear Axis
- Mount the UR robot on the carriage

### Electrical

From the control cabinet, the following electrical connections have to be made:

- Motor control: Orange and green cables from the cabinet to the SEW motor connector
- Data connection: Connect the Ethernet cable coming from the cabinet to the UR controller box, either directly or through an Ethernet network/switch.
- Sensor connection: Connect the limit switch cables coming from the HIWIN Linear Axis to the cabinet.
- Safety signals: Connect the bundle of wires coming from the cabinet to the safety I/Os inside the UR Controller box.
- Grounding wire: connect the grounding wire to the application grounding pin inside the UR controller box.

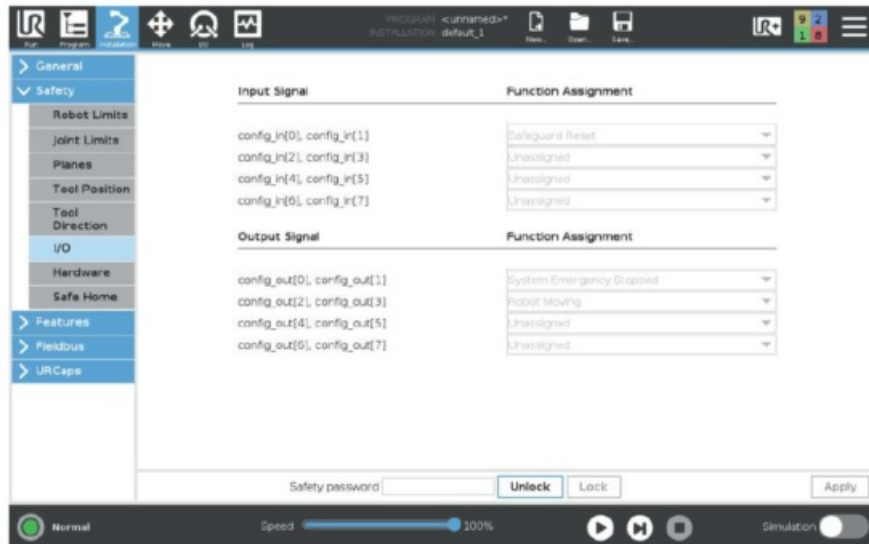
### URCap Installation

- Insert the USB flash drive into the teach pendant
- Go to settings – Systems – URCaps and press the + button
- [CoboTrack.urcap](https://cobotrack.urcap) will be added to the robot
- Press restart to activate the URCap

### Safety setup

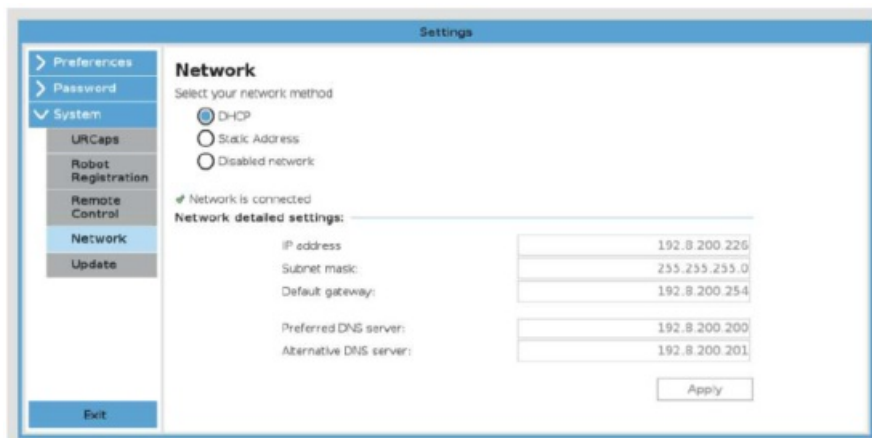
The required safety settings can be set in the Installation -> safety -> I/O menu. For safe operation it is required that: .

- “confi g\_in[0], confi g\_in[1]” is set to “Safeguard Reset”
- “confi g\_out[0], confi g\_out[1]” is set to “System Emergency Stopped”
- “confi g\_out[2], confi g\_out[3]” is set to “Robot Moving”

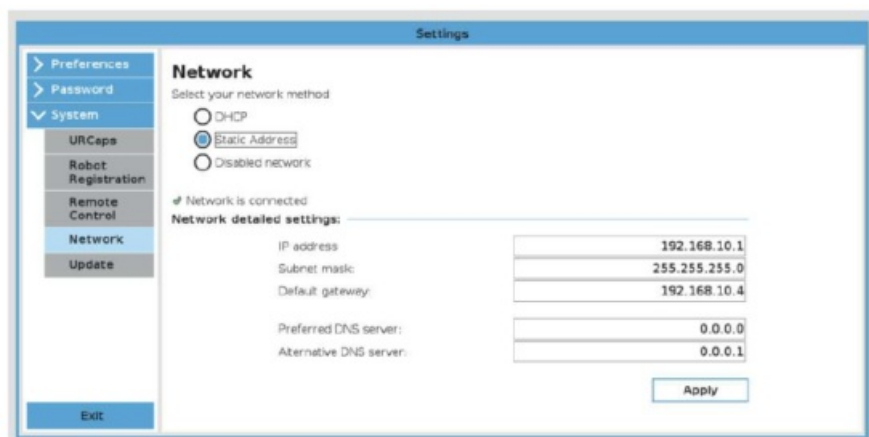


## Network setup

When connecting the LMK to an existing network (supporting DHCP) the robot's network should be setup using the DHCP method shown in the following image:



The dip switches inside the LMK controller should be set as follows, and make sure DHCP is enabled by checking, and/or adjusting parameter P785 of the LMK drive: When connecting the LMK directly to the UR controller box, the robot is to be setup with a Static Address configuration. The Network detailed settings are to be set as follows:



The dip switches inside the LMK controller should be set as follows:

## Configuring installation


The Linear Motion Kit installation can be configured from: Installation -> URcaps -> Linear Motion Kit menu.

- Setup the LMK IP-address by pushing the “Find IP”-button.
- Setup Modbus starting register, change as required by other applications running on the robot.
- Adjust the track length to match the physical track available.
- Adjust the collision threshold as required by the intended application.
- Push the “Connect”-button to start the MODBUS connection to the track.
- Reference the track by pushing and holding the reference button until the connection status symbol turns green.



Linear Motion Kit is now ready for use.

## Documents / Resources

	<p><a href="#">HIWIN HT-B 7th Electric Linear Axis Kit</a> [pdf] User Guide HT-B 7th Electric Linear Axis Kit, HT-B, 7th Electric Linear Axis Kit</p>
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## References

- [H HIWIN | Startseite](#)