# **fischertechnik EXE** AGILE PRODUCTION SIMULATION 24V



Instruction Manual

Version: 1 Model revision: 1.x 11/2023

## **Quick Start Guide**

Dear customer,

Thank you very much for choosing our product! This manual will guide you step by step through the commissioning, from reviewing the scope of delivery to placing an initial order for a workpiece in the **Agile Production Simulation** (referred to in the following as the APS) locally and over the fischertechnik Cloud. Please take a moment to read the instructions carefully.

## Scope of delivery

• Eight base plates with modules and track guidance

The different available modules are on six of these base plates; these are listed in the following section. There are also two track plates. These are connected between the modules using pins when setting up the APS, so as to create a surface on which the driverless transportation system (AGV) can move and transport workpieces.

The following section describes the six **modules** that are mounted on base plates, as well as the track plates:

1. Incoming / outgoing goods with 6-axis robot, Raspberry Pi 4B, WiFi router and sensor station



2. High-bay warehouse



## 3. Drilling station



4. Milling station



5. Quality assurance with AI



6. Charging station



7. Two **track plates** The AGV moves on these plates.



• A AGV (Automated Guided Vehicle)

This system moves on the base plates and is responsible for transporting the workpieces between the modules. In contrast to the modules, the AGV is supplied with power by a battery



• (Optional) two **carrying cases** for transporting and storing the base plates and modules, the lane plates and the AGV



• A **24V power supply** 11A For supplying power to the modules.





#### • A 9V charger

For supplying the charging station with the charging voltage for the battery of the AGV.



- Additional accessories
  - Nine empty workpiece carriers for the high-bay warehouse and three empty workpiece carriers for the AGV.



 24 workpieces in the three available colors red, white and blue.
Stickers are already attached to the workpieces, which will be analyzed in the quality assurance.



• Five Ethernet cables to connect the module plates together.



• Six power cables to connect the module plates together.





## Inspection for damage in transit

After you have carefully removed the AGV from its packaging, complete a visual inspection to determine whether components have come loose or been damaged during transit. The following section provides instructions for how to inspect the system for damage sustained in transit, and what to do if you find damage.

#### Box:

inspect the outer box for visible damage such as dents, holes or tears.

#### Loose parts:

Check whether loose parts are lying inside the box that may have come loose during transportation. If necessary, return loose components to the correct positions.

#### Loose cables:

Inspect all included cables for damage and check to ensure they are attached securely. Check to ensure all hoses are connected.

#### Documenting damage:

- Take photographs of all damage found.
- Note down details like the type and scope of damage.
- Contact customer service:

**Report damages found** promptly to our service department. Send photos and your notes regarding the damage as an attachment to your email.

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Storing the **packaging** 

- Store all packaging materials and damaged parts until your case has been clarified.
- If you find serious damage, do not operate the product, in order to avoid further damages.

Please pardon us for any inconvenience – we will do everything in our power to replace or repair damaged or faulty parts as quickly as possible. If you have questions regarding the inspection for damage in transit, or if you need support, our customer service department will be happy to assist you at any time.

## Available documentation

We provide you with extensive documentation to make it as easy and convenient as possible for you to get started with and use the APS. This documentation helps familiarize you with the product, clarify any questions which may come up, and support you in commissioning and operation.

The documentation components are available online in different formats, and are updated regularly to ensure you always have access to the latest information and instructions. This allows you to access the documents you need anytime and from anywhere, and thereby get the most out of your system.

The documentation available online covers:

- Setup and commissioning of the Agile Production Simulation
- Commissioning the Agile Production Simulation with the fischertechnik Cloud
- Technical product details
- Calibrating the Agile Production Simulation
- Programming tasks for PLC development

The corresponding documents are available in different languages at the following link:

https://www.fischertechnik.de/e-learning/agile-production-simulation



We recommend familiarizing yourself with the available documentation in order to ensure a smooth commissioning process and fault-free operation. If you have further questions or need specific information, do not delay to contact our customer service department.

#### Important notes

- Please store this manual for later reference.
- Switch off the system when it is not in use in order to save energy and extend the service lives of your components.

We wish you much success with the Agile Product Simulation! If you have questions or concerns, our customer service department would be happy to assist you.

