STEM CODING ULTIMATE AI ADD ONS | SECONDARY SCHOOL

STEM Coding Ultimate AI: Add Ons

Three additions in the fields of industrial robotics, AI, and mobility.

fischertechnik combines the digital and physical worlds with these three expansion kits for industrial robotics, AI, and mobility. The three Add Ons expand the STEM Coding Ultimate AI set with hands-on learning kits for artificial intelligence, autonomous mobility, and industrial robotics. They are designed for use in secondary school classrooms and provide a hands-on introduction to key technologies of the future. All Add Ons require the STEM Coding Ultimate AI base set and combine construction, programming, and experimental learning. Programming is based on Blockly and Python. This makes the sets suitable for both introduction and more advanced projects in STEM education.

LEARNING OBJECTIVES

Understand the fundamentals of artificial intelligence and apply simple object recognition

Evaluate the quality of classifiers and recognize the importance of appropriate training data

Apply object recognition and image processing in real-world applications

Gain hands-on experience with autonomous driving, control engineering, and analog sensor technology

Measure speed, distance, and range, and control omni-wheel vehicles

Understand the design, operation, and applications of modern industrial robots and program application examples

STEM MATHEMATIK INFORMATIK NATURWISSENSCHAFT TECHNIK

Built on Blockly

python

Add On: Mobility
Facts

Expansion set for STEM Coding Ultimate AI, which allows students to **build and program** their own robots and vehicles while learning about modern mobility technologies such as **autonomous driving**, **object recognition,** and **driver-assistance systems.**

2 - 4 students

370 pieces

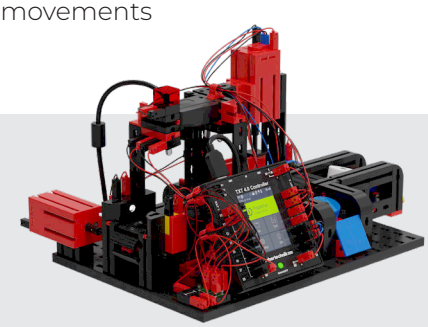
5 models

Incl. 4x mecanum omniwheels, 1x servo, 2x encoder motors, 1x chassis, 2x obstacle courses, 1x LED

Learning Objectives
- Learn about autonomous driving and sensor technology
- Control vehicles and measure their movements

N.° art.	581831
EAN	4048962591798
Dim. (mm)	435x310x78
Weight (g)	2.010

Add On: Vision AI
Facts



Expansion set for STEM Coding Ultimate AI, which allows students to learn the **basics** and **applications of artificial intelligence** in a hands-on way using three models.

2 - 4 students

295 pieces

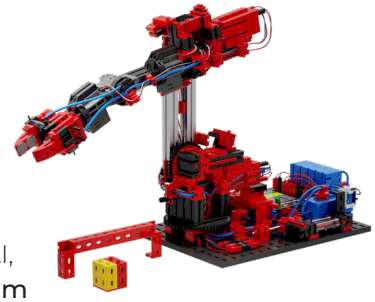
3 models

Incl. conveyor belt, work pieces, 4x LED's & stickers

Learning Objectives
- Understande the basics of AI and object recognition
- Evaluate training data and classifiers

N.° art.	581832
EAN	4048962591804
Dim. (mm)	435x310x78
Weight (g)	1.400

Add On: Industrial Robots
Facts



Expansion set for STEM Coding Ultimate AI, which allows students to **build and program** two realistic six-axis robot models while gaining hands-on experience **with the fundamentals** of modern **industrial robotics**.

2 - 4 students

350 pieces

2 models

Incl. 3x servo joints with digital servos & work pieces

Learning Objectives
- Understand the structure and function of industrial robots
- Program robots and implement applications

N.° art.	581833
EAN	4048962591811
Dim. (mm)	435x310x78
Weight (g)	2.000

All Add Ons are delivered in our high-quality, durable, and stackable storage boxes.

Art. 228798 - 07/26