



# iRobot Factory

## Edutainment Game “iRobot Factory”

Presentation at Gamescom Cologne 2025  
Hall 04.1 | Booth C059g

iRobot Factory is **developed by**

einfachgenial

iRobot Factory is **funded by**

 Walter Nebel Stiftung



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## Executive Summary

<b>Name:</b>	iRobot Factory
<b>Game Genre:</b>	Serious Game, Edutainment, Logic Game
<b>Area:</b>	primarily for use in schools from year 8 onwards, across all educational levels and school types for IT and technology lessons
<b>Development:</b>	since 2019, the team at Einfach Genial gGmbH and various school contributors have been continuously developing the software
<b>Funding:</b>	Walter Nebel Stiftung
<b>Devices</b>	Computers and tablets
<b>Platforms:</b>	Windows, Google Play Store, Apple App Store, Steam, Online Application
<b>Website:</b>	<a href="http://www.i-robot-factory.org">www.i-robot-factory.org</a>

The iRobot Factory is a serious game developed by Einfach Genial gGmbH in Hanover, Germany, which allows students to interactively build and programme their own robot in a 3D simulation and control it through levels of varying difficulty. The aim is to provide a solid basic understanding of robotics, logic and programming in a playful way.





## **We need to change our thinking | Learning through thinking and doing**

*‘The world we have created is a product of our thinking. It can only be changed if we change our thinking.’*

– Albert Einstein (1879–1955), Theoretical Physicist

The iRobot Factory was developed by the non-profit organisation Einfach Genial gGmbH to give young people a basic understanding of robotics, programming and logical thinking in a fun way. The idea behind it is that learning doesn't just happen by memorising facts, but through active experimentation, creative problem solving and experiencing technology in a digital simulation.

### **Goals:**

- Promotion of digital education and technical understanding in a school context, as well as active participation in shaping the digital world
- Use as an educational game in computer science and technology lessons
- Development of creativity and thinking skills: pupils learn to look at problems differently and solve them through trial and error.

The iRobot Factory supports the approach of immersive learning, a form of learning that not only informs learners but also draws them emotionally and cognitively into the action. The aim is to create an environment in which learning feels like experiencing.

The simulated digital environment with robots, complex tasks and challenges creates a ‘mini world’ in which you think and act like real developers. Those who programme must analyse, plan, test and optimise.

*‘The world [...] can only be changed if we change our thinking.’*

Einstein calls for a profound rethink. Immersive learning is a means by which this can be achieved. When students immerse themselves in a world of thinking and learning, education becomes transformative. They learn to grasp complex interrelationships and act independently. These are skills that the digital future urgently needs.



## **Project information: Realise your own ideas through virtual robotics**

In numerous projects related to education, particularly in a workshop on the creative use of 3D printers in schools, Einfach Genial gGmbH was made aware of the topic of robotics by teachers and confronted with a recurring problem: Many schools are interested in robotics, but the kits and materials required are often costly and therefore impractical for widespread use in schools.

This challenge sparked a new idea: low-threshold, free access to robotics in a virtual space. This is how the vision of the iRobot Factory came about. The project was launched with the help of a young team of game developers and financial support from the Walter Nebel Stiftung.

Since then, the iRobot Factory has been further developed step by step in collaboration with teachers and students and by Einfach Genial gGmbH.

### **Development stages**

- 2019: Idea and start of development
- 2020: First pilot workshops for students
- 2022: Kick-off of the iRobot Factory
- 2023: Workshops for teachers in cooperation with the NLQ (Niedersächsisches Landesinstitut für schulische Qualitätsentwicklung)
- 2024: Development of the level editor
- 2024: Come Together meetings as an exchange platform
- 2025: Development of AI in the iRobot Factory



## Technical information

The iRobot Factory is available in different versions.

**Windows-Version:** The iRobot Factory is available as a free manual download for Windows devices. Once installed, it works offline and only requires a stable internet connection for updates. It uses a specially developed update and licensing system from Einfach Genial gGmbH

Minimum requirements:

- Operating system: Windows 10 or 11 (Note: Older versions have not been tested. Functionality on these systems is possible but cannot be guaranteed.)
- Ram: 4 GB or more
- Storage space: 2 GB or more recommended
- Internet connection: Required for installation and updates. After that, only occasionally necessary to check the license

**Steam:** The iRobot Factory can be downloaded free of charge via the Steam platform.



Minimum requirements:

- Operating system: Windows 10
- Memory: 4 GB RAM
- Storage space: 150 MB available storage space

**Google Play Store:** iRobot Factory can be downloaded free of charge from the Google Play Store. Please refer to the store description for technical requirements.



**Apple App Store:** iRobot Factory can also be downloaded free of charge from the Apple App Store. Please refer to the store description for the technical requirements.



**Online Anwendung WebGL:** The iRobot Factory can be played online using any browser. A password is required to access the game, which can be requested at [info@einfachgenial.org](mailto:info@einfachgenial.org).





## Team & Contact Persons, Press Materials

Producer: Claudia Ghouri, Managing Director  
Malay Keophilavanh, former Managing Director  
Sabine Oppermann, Managing Director  
Max Fechner, Managing Director

Executive Producer: Maximilian Nebel, Walter Nebel Stiftung

Development: Phillip Massler, Development & Design  
Darius Branning, Development & Design  
Oliver Bratzke, Artist  
Marvin Dziamski, Artist  
Lucas Mohr, Artist  
Inke Lorenzen, Programmer  
Henrik Sager, Programmer  
Cristina Nichita, Programmer  
Krzysztof Paradovski, Programmer  
Lukas Schweinfurt, Sounds & Music  
Adrien Yam, Level Design  
Timo Körner, Level Design  
Samira Chiara Garcia, Level Design  
Adina Guiu, Drawings  
Vivien Siemers, Drawings

### Press contact

Claudia Ghouri  
Managing Director, Einfach Genial gGmbH  
Producer iRobot Factory

E-Mail: [cghouri@einfachgenial.org](mailto:cghouri@einfachgenial.org)

Phone: +49 511 9666-811

Mobil: +49 176 7388 693

### Press material

<https://www.i-robot-factory.org/presse>

Password: **IRFPresseZugang**





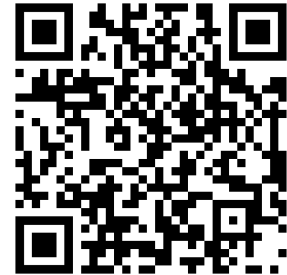
## Further edutainment offerings from Einfach Genial gGmbH

In addition to the iRobot Factory, Einfach Genial gGmbH offers various free serious games, edutainment applications, and learning and motivation software.

### Die Geistesdimension

Die Geistesdimension is part of the overall 'career orientation' package from Einfach Genial gGmbH and is aimed at young people from the 8th grade onwards. The game was developed in a co-creation process between students, trainees and companies. Within the mental dimension, players can explore different skills portals, play mini-games and discover their strengths.

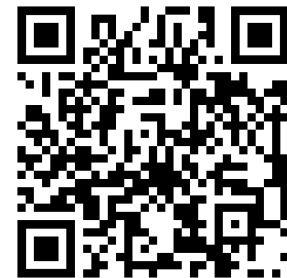
[www.digitaler-escape-room.org/geistesdimension](http://www.digitaler-escape-room.org/geistesdimension)



### Berufsorientierungsparcours (BO-Parcours)

The career orientation course (BO-Parcours for short) is also part of Einfach Genial gGmbH's career orientation programme. The BO-Parcours was developed in collaboration with trainees to provide authentic insights into various professional fields. Players go through various exciting mini-games.

[www.digitaler-escape-room.org/bo-parcours](http://www.digitaler-escape-room.org/bo-parcours)



### Mars Mission

The Mars Mission is a game that brings the real world of business to life in a virtual environment. Players can discover different career fields at well-known companies by immersing themselves in real business processes and taking on everyday professional tasks. The Mars Mission can also be used for career guidance purposes.

The game is currently being revised but is still available as a free download for Windows!

[www.mars-mission.org](http://www.mars-mission.org)





### **Haru-Schule App**

The Haru School app was developed in collaboration with the team from the 'Rucksack School' department of the Landeshauptstadt Hannover and is aimed at primary school pupils and their parents and guardians. In the Haru app, children can explore the city of Hannover and learn about traffic, nature, school and much more in a playful way. With 8 different themes and more than 70 mini-games, the Haru app is the most comprehensive game from Einfach Genial gGmbH to date.



[www.haru-schule-hannover.org](http://www.haru-schule-hannover.org)

### **Muko Sport App**

The Muko-Sport app was developed specifically for people with cystic fibrosis to motivate them to lead an active lifestyle. With a variety of training videos and exercises, the app offers a practical way to be physically active every day.



[www.muko-sport.org](http://www.muko-sport.org)