

German company, specialised in interactive toys with sensor-based technology, looks for a production partner to jointly set up the manufacturing process and to establish a prototype production line under a commercial agreement with technical assistance

## Summary

Profile type	Company's country	POD reference
<b>Technology request</b>	<b>Germany</b>	<b>TRDE20250220021</b>
Profile status	Type of partnership	Targeted countries
<b>PUBLISHED</b>	<b>Commercial agreement with technical assistance</b>	<b>• World</b>
Contact Person	Term of validity	Last update
<a href="#">Enrico FRANZIN</a>	<b>20 Feb 2025</b> <b>20 Feb 2026</b>	<b>24 Feb 2025</b>

## General Information

### Short summary

The German start-up develops an interactive, sensor-enabled playmat for children. To guide the planning and testing of the manufacturing process, the company is seeking a production partner with expertise in prototype construction/small series production, plastics, electronics and/or technical/digital/electronic textiles. A cooperation under a commercial agreement with technical assistance is sought.

### Full description

The German startup is an emerging player in the growing connected toys market, drawing on expertise in user experience (UX) design and the development of stories and narratives. The company develops innovative interactive toy that combines immersive storytelling, sensor-based technology and eco-friendly design.

The company's primary activity revolves around the development of a sensor-enabled playmat to offer children a screen-free, interactive storytelling experience. By moving physical figures on the playmat, players activate logic-based audio narratives that branch according to the child's decisions. This unique interplay of physical movement and digital storytelling encourages creativity, active learning, and collaboration—filling a gap in the market for high-

quality, educational entertainment products that are neither solely digital nor purely analog.

Future expansions will introduce new storylines, characters, and interactive features, ensuring that the German company remains on the cutting edge of educational and entertainment technology.

They are currently seeking a production partner to collaborate on testing and finalizing the necessary steps to manufacture the complete product. This includes two main components:

- (1) A robust, injection-molded plastic housing that also includes a soft or padded outer layer to ensure child-friendly durability. This housing will contain the microcontroller, batteries, speakers, buttons, and the interface for connecting to the playmat. A potential partner should be able to incorporate the electronics into the plastic housing.
- (2) Using high-frequency (HF) welding on soft TPE material, the playmat features integrated wiring and small PCBs placed at specific points. Each PCB holds sensors and an LED.

The company's goal is to create a high-quality, scalable product that meets safety standards and delivers a seamless, immersive play experience for children.

A development and manufacturing partner under a commercial agreement with technical assistance is sought.

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#### Advantages and innovations

At the core of the company's unique selling proposition is the integration of physical interaction, immersive storytelling, and expandable technology. Interchangeable surfaces and add-on packs enable new story worlds, updated figures, and fresh content to keep the experience engaging and adaptable over time. This modular approach, combined with the potential for sustainable materials, sets the product of the German start-up apart from conventional toys by offering a customizable, long-lasting solution that minimizes screen dependence and fosters imaginative play.

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#### Technical specification or expertise sought

- Central Audio Box: Incorporation of the ESP32 microcontroller, batteries, speakers, and buttons in a robust housing (injection-molded or similar).
- Sensor-enabled playmat: High-frequency welding on soft TPE (or similar) material, with wiring and PCBs integrated at specific points.
- Soft-touch outer padding is mandatory to ensure a safe, impact-resistant design. The material mix for the robust, child-friendly outer padding needs to be determined together with the manufacturer.
- CE and REACH compliance is desired.
- Any color pigments, additives, or coatings used must meet child-safety requirements (e.g., non-toxic and free from hazardous substances).

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#### Stage of development

**Available for demonstration**

IPR Status

**No IPR applied**

IPR Notes

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#### Sustainable Development goals

- **Goal 4: Quality Education**

IPR Notes

## Partner Sought

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### Expected role of the partner

The German start-up is currently seeking a production partner to guide the planning and testing of our manufacturing process, with an immediate focus on estimating production costs and evaluating child-safety standards.

In the first phase, they aim to establish a prototype production line and confirm cost structures. Subsequently, they would like to produce a small volume of 50 to 100 playmats, ensuring compliance with CE certification, applicable child-safety norms for ages three and up, and, if possible, REACH standards. The partner will work with pre-defined color schemes and branding concepts.

While their immediate focus is on refining the current design and industrializing the product, they are open to cultivating a long-term relationship with a manufacturing specialist who can support the product's ongoing evolution.

The sought project partner should come from prototype construction/small series production with expertise in plastics, electronics, technical/digital/electronic textiles.

### Type of partnership

**Commercial agreement with technical assistance**

### Type and size of the partner

- **SME <=10**
- **Big company**
- **R&D Institution**
- **Other**
- **SME 50 - 249**
- **SME 11-49**
- **University**

## Dissemination

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## Technology keywords

- **02007014 - Plastics, Polymers**
- **01005002 - E-Learning**

## Targeted countries

- **World**

## Market keywords

- **07006 - Other Consumer Related (not elsewhere classified)**
- **03004003 - Other electronics related equipment**
- **03001009 - Other electronics related (including keyboards)**
- **09004003 - Textiles (synthetic and natural)**
- **07001003 - Toys and electronic games**

## Sector groups involved

## Media

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## PDF documents

[Bild1.pdf](#)

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