Danish SME seeks engineering partner for AI vision and robotic integration of autonomous weed-control garden robot

Summary

Profile type	Company's country	POD reference
Technology request	**Denmark**	**TRDK20260513022**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Commercial agreement with technical assistance**	**• All countries**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**13 May 2026** **13 May 2027**	**13 May 2026**

General Information

Short summary

A Danish SME developing an autonomous garden robot for non-chemical weed control seeks a technology partner with expertise in AI vision, robotic navigation, electronics, enclosure design, battery management and system integration. The aim is to define and build a functional prototype by integrating vision, safety, laser and robotic platform components.

Full description

A Danish SME is developing an autonomous consumer robot for weed control in private lawns. The company has previously developed a functioning prototype based on mechanical weed removal and has verified the general feasibility of automated weed control in grass areas. Based on technical and product-related learnings, the company is now developing a new version using laser technology and artificial intelligence.

The new concept requires a complete technical architecture around a compact weed-control module. The robot should be able to navigate a lawn, use cameras and computer vision to distinguish grass from unwanted plants, identify the position of the weed root and activate a targeted treatment module. The company has identified possible standard/OEM robotic platforms, but the system architecture, integration and prototype development still need to be defined.

The company is therefore looking for a technology partner that can support the broader engineering work needed to turn the concept into a prototype. The partner should be able to assist with system design, AI/computer vision, sensor integration, mechanical engineering, electrical engineering, enclosure design, battery management and safety-related circuitry.

The cooperation should lead to a clear technical specification, a prototype architecture and preferably a first working prototype. The partner may work together with a separate laser specialist or help integrate a laser module developed through a parallel R&D cooperation.

The requested cooperation is not a request for direct product sales. The company is seeking a technical development partner able to contribute know-how and engineering capacity to a new consumer-oriented robotic solution.

Advantages and innovations

Technical specification or expertise sought

The partner should be able to contribute expertise in several of the following areas:

Computer vision and AI models for distinguishing grass from non-grass
Image-based identification of weed position and root area
Camera and sensor integration
Robotic navigation for lawn environments
Integration with modular or OEM robotic platforms
Mechanical engineering and enclosure design
Electrical engineering and wiring architecture
Battery management
Safety circuits and component placement
System integration of laser, vision, navigation and power components
Prototype design and testing
Cost estimation for prototype and small-series production

The partner does not necessarily need to cover all competences in-house, but should be able to take responsibility for a substantial part of the system integration and prototype development.

Stage of development

Concept stage

Sustainable Development goals

• Goal 11: Sustainable Cities and Communities

IPR Status

Secret know-how

IPR Notes

Partner Sought

Expected role of the partner

The company is looking for an engineering company, robotics SME, technology SME or applied research organisation with experience in mobile robotics, embedded systems, AI vision or mechatronic product development.

The partner's role would be to help define the technical architecture, select components, integrate the relevant subsystems and support prototype development. The partner should be able to work in an iterative development

process and collaborate with other specialist partners if needed.

Partners from across the EU are relevant. There is particular interest in Poland, Germany, Eastern Europe, the Baltic countries and the Netherlands, but the profile is open to suitable partners from other countries.

Type of partnership

Commercial agreement with technical assistance

Type and size of the partner

- **SME 50 - 249**
- **SME <=10**
- **SME 11-49**

Dissemination

Technology keywords

- **01001001 - Automation, Robotics Control Systems**

Market keywords

- **09003001 - Engineering services**
- **08002004 - Robotics**

Targeted countries

- **All countries**

Sector groups involved