

PEK AUTOMOTIVE d.o.o.

1. Company Overview

PEK AUTOMOTIVE d.o.o., Obrtniška ulica 17, 1370 Logatec, Slovenia

- Established: 2019
- Private limited company (SME)
- Operating under Slovenian Ministry of Defence licence
- Approximately 120 employees
- 10,000 m² industrial facilities near Logatec

PeK Automotive is a Slovenian technology company developing low-voltage autonomous electric unmanned ground vehicles (UGVs) and enabling technologies designed from the outset for dual-use applications.

The company operates across three core pillars:

- Defence, Civil Protection & Space
- Agricultural Automation
- Information Technologies

All core systems, drivetrain, autonomy, radar, stabilisation and control software are developed in-house, ensuring technological independence, rapid customisation and high operational reliability.

Website: <https://pekauto.com/>

2. Core Capabilities & Technologies

PeK Automotive provides modular low-voltage electric platforms and advanced autonomous control systems.

Key Technological Strengths:

- 48 V on-board electric drivetrain platform
- High-torque PMSM motors with zero-RPM capability
- Narrow-beam 120 GHz radar for UGV autonomy
- Real-Time Kinematic (RTK) positioning with 10 mm accuracy
- GNSS-denied autonomous navigation capability
- LiFePO₄ modular battery systems with embedded BMS
- FPGA and ASIC-based electronics development
- In-house firmware, software and control systems
- Mobile command unit and First-Person View (FPV) control
- “Follow Me” autonomous support mode

All mechanical, electronic and software engineering is performed internally, enabling full system integration and fast adaptation to mission-specific requirements.

3. Product Portfolio Relevant for the Philippines

Spektrum: Modular Autonomous EV Platform (48 V)

Spektrum is a low-voltage electric tracked base platform designed for rapid reconfiguration across defence and civil protection missions.

- Fully electric tracked UGV
- Integrated sensor suite and radar
- Remote control, FPV and autonomous modes
- RTK precision navigation
- Modular payload integration
- Operation in hazardous and GNSS-denied environments

Customisable configurations include:

- Mechanical flail demining system
- Logistic Unmanned Ground Vehicle (LUGV)
- Fire Fighting Robotic System (FFRS)
- Casualty evacuation (CASEVAC)
- ISR (reconnaissance and surveillance)
- CBRN decontamination system

LUGV: Logistic Unmanned Ground Vehicle

Fully electric tracked UGV engineered for critical infrastructure and off-road logistics.

- Cargo capacity up to 1,500 kg
- Operation on slopes up to 32°
- Gravity-stabilised platform
- Designed for harsh and high-risk environments

Fire Fighting Robotic System (FFRS)

- Designed for industrial fires, fuel depots and military bases
- Medium-expansion foam and water suppression
- Remote and autonomous operation
- Rapid deployment capability

Deminer System

- Remote-controlled or autonomous demining
- High structural durability
- Precision navigation within 10 mm
- Minimises human exposure in minefields

Decontamination System

- Rotating duct spraying system
- Designed for CBRN scenarios
- Remote, FPV, voice and follow-me control modes

4. Target Sectors in the Philippines

- Department of National Defence

- Armed Forces of the Philippines
- Civil Defence and Disaster Risk Reduction authorities
- Fire and rescue services
- Ministry of Agriculture
- Industrial and port logistics operators

5. Use Cases Relevant to the Philippines

Disaster Response & Civil Protection

- Flood rescue operations using amphibious EV platforms
- Wildfire suppression via robotic firefighting systems
- CBRN decontamination in hazardous zones
- Remote casualty evacuation

Logistics & Infrastructure Support

- Transport of heavy cargo across mountainous or flood-prone terrain
- Industrial and port logistics automation
- Military base resupply operations

Mine Clearance & Hazard Mitigation

- Autonomous and remote demining
- Risk reduction for personnel in contaminated areas

Agricultural Automation

- Autonomous orchard and vineyard robotics
- Labour shortage mitigation
- Year-round electric agricultural operations

6. Competitive Advantages

- Fully proprietary low-voltage EV architecture
- Complete in-house technology stack
- Modular design enabling rapid mission adaptation
- GNSS-denied operational capability
- Electric drivetrain enhancing safety and efficiency
- Proven autonomous deployments in agricultural environments
- Strong dual-use positioning

7. Manufacturing & Infrastructure

- 10,000 m² industrial complex near Logatec
- Dedicated manufacturing space
- Independent prototyping department
- Separate testing facility
- In-house technological control over design and assembly

Manufacturing Philosophy:

- Full technological independence
- Controlled outsourcing for scalable production
- Dedicated R&D and prototyping capabilities

8. Deployment & Cooperation Models

PeK Automotive seeks cooperation in the Philippines through:

- Pilot deployments with defence and civil protection authorities
- Joint development of mission-specific UGV platforms
- Local integration and assembly partnerships
- Technology transfer and operational training
- Integration into disaster-response and defence modernisation programmes

Cooperation focus:

- Protection of personnel in hazardous environments
- Electric and autonomous mobility for defence and civil use
- Resilient logistics and disaster preparedness
- Long-term industrial partnerships

9. Primary Contact

Sašo Letnikoski

Technical Marketing Manager

Email: sle@pekauto.com

Telephone: +386 30 343 836

Website: <https://pek-defence.com/>