



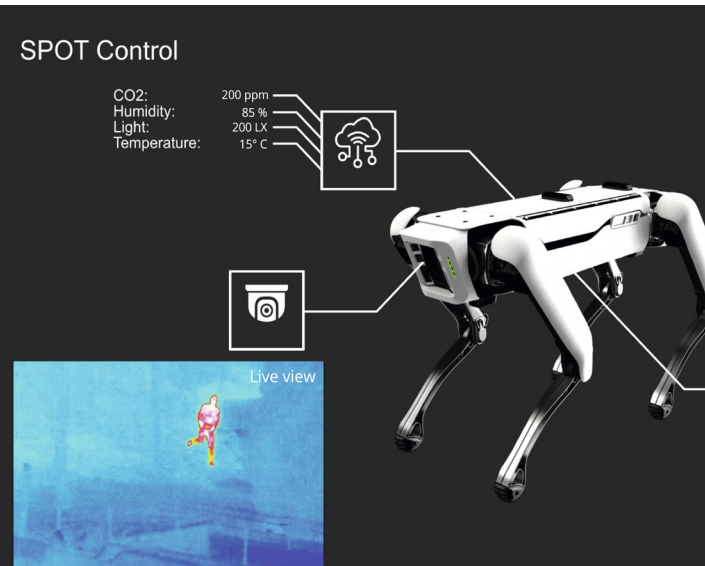
ADVANCIS WHITEPAPER

USE OF ROBOTICS IN INDUSTRIAL ENVIRONMENTS



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Robots are used in industry not only for manufacturing purposes, but also for safety and security purposes. Mostly these will be drones or robotic dogs. In particular the advancement in artificial intelligence but also in the design of automatic machines over the last years has resulted in very flexible robot solutions that are often used to replace human task fulfillment: Robotic dogs can carry loads, climb stairs, jump over obstacles or be used in impassable terrain or hazardous environment conditions, e.g. due to chemical threats. The use of robotic solutions that are directly connected to the open integration platform WinGuard offers numerous advantages with regard to ensuring comprehensive security of an extensive industrial site.



Fault monitoring of robotics

WinGuard constantly monitors the current status of the connected robotic devices, e.g. dogs or drones. In case of a malfunction, the robot immediately sends a corresponding event message indicating the detected irregularity to the control center so that the suitable workflow for maintenance and/or repair of the robotic device can be immediately initiated and processed.

In addition, the robot sends its exact location data so that in case of need, personnel who are nearby can be informed via their mobile devices and check the status of the robotic device on site.

Protection against theft

As robotic devices are of very high quality and expensive, they are also often affected by theft.

Due to the constant monitoring of the complete industrial premises via WinGuard, e.g. with perimeter surveillance, the WinGuard platform will immediately receive an alarm in case of intrusion or fence damage. The platform then reacts automatically and sends the robotic devices into safe hangars, e.g. in unmanned remote areas, or triggers an alarm bell and/or plays a loudspeaker message to scare off intruders.

AI-based anomaly detection

The integration platform WinGuard does not only provide an alarm in case of a status change (malfunction) of the robotic device, but it is also possible that the devices themselves provide AI-based alarms: In case a robot dog detects holes in the fence during its guard control tour or a drone detects a hazardous material spill, the WinGuard operator in the control center can immediately take the appropriate actions to solve the situation. This is in particular for very extensive premise, saving time and personnel resources.

Talk to us about your requirements. Together with our system and technology partners, we will find the right solution for you.

+49 (6103) 80735-0 - info@advancis.de - www.advancis.de

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