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Domestic And Export Agreements Of The Łukasiewicz – PIAP In 2021



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The Research Network Łukasiewicz – Industrial Institute of Automation and Measurements PIAP have summarised their this year's deliveries to security and public order services both at home and abroad.

REKLAMA



(<https://warsawsecurityforum.org/>)

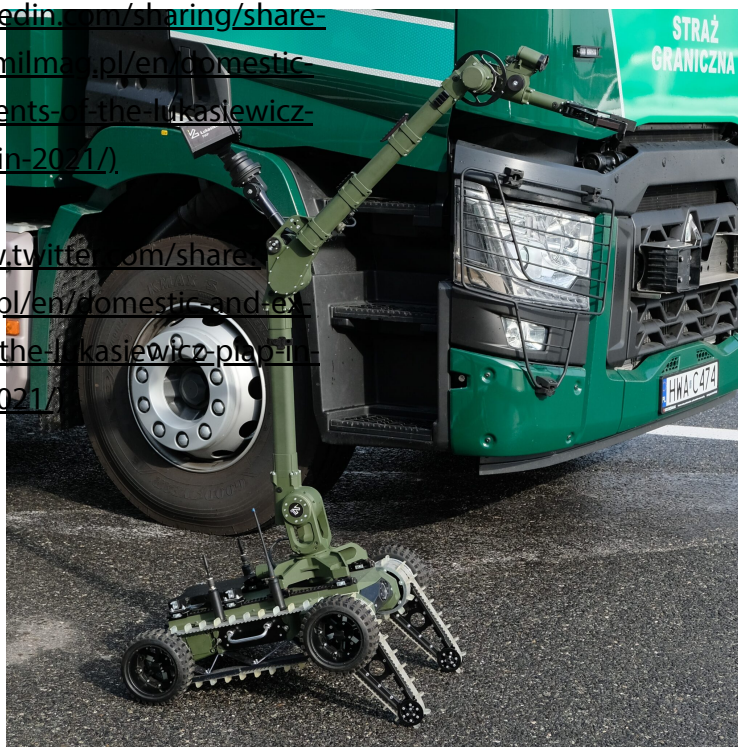


On 22 December this year, the Research Network Łukasiewicz – Industrial Institute of Automation and Measurements PIAP informed the editorial team of the MILMAG Military Magazine of the sales of more than a dozen of specialised robots to Polish and foreign customers from security and public order sector.

(<https://www.facebook.com/sharer/sharer.php?u=https://milmag.pl/en/domestic-and-export-agreements-of-the-lukasiewicz-piap-in-2021/>).

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(<https://milmag.pl/2021/wp-content/uploads/2021/12/piap-gryf-2021-sg-scaled.jpg>)

A medium pyrotechnic robot PIAP GRYF in the Border Guard service. Image: Border Guard (SG).

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KAHLES



K318i

(https://www.kahles.at/en/sport/rif3_5-18x50i).

Łukasiewicz – PIAP considers five heavy pyrotechnic robots PIAP IBIS, which were contracted by Polish Police ([Five Large-Size Łukasiewicz-PIAP Robots Delivered To Polish Police Bomb Disposal Technicians](https://milmag.pl/en/five-large-size-lukasiewicz-piap-robots-delivered-to-polish-police-bomb-disposal-technicians/) (<https://milmag.pl/en/five-large-size-lukasiewicz-piap-robots-delivered-to-polish-police-bomb-disposal-technicians/>)).

The key issue for the Institute was also the delivery of the second and the last batch of the patrolling-portable robots (RPP) – so-called Engineering Robot 1806 – for the Polish Army, numbering a total of 35 machines ([Additional RPP robots delivered to the Polish Army](https://milmag.pl/en/additional-rpp-robots-delivered-to-the-polish-army/) (<https://milmag.pl/en/additional-rpp-robots-delivered-to-the-polish-army/>)).

The subsequent orders have been delivered for the foreign entities. The Institute provided its robotic solutions to customers from Israel, France, Indonesia and Italy. The armed and security forces of the aforementioned states have been equipped with PIAP TRM as well as PIAP GRYF robots this passing year ([GRYF for Romanian Armed Forces](https://milmag.pl/en/gryf-for-romanian-armed-forces/) (<https://milmag.pl/en/gryf-for-romanian-armed-forces/>). [More PIAP robots for Romania](https://milmag.pl/en/more-piap-robots-for-romania/) (<https://milmag.pl/en/more-piap-robots-for-romania/>)).

The mobile robots, developed and manufactured by the Research Network Łukasiewicz – the Industrial Institute of Automation and Measurements PIAP, have so far found the recipients in 22 countries. Despite these undisputed successes, the management of the institute still undertakes actions to approach the potential global customers. For instance, throughout this year, shows and tests for the pyrotechnic and bomb disposal security services were performed all over Europe.



(<https://milmag.pl/2021/wp-content/uploads/2021/12/piap-gryf-2021-sg1-scaled.jpg>) *A medium pyrotechnic robot PIAP GRYF of the Border Guard. Image: Border Guard (SG)*

The next generation of the PIAP GRYF robot enjoys the greatest interest. This is the best known and well-proven model of the medium robot, already in use by several armed forces in the world, from South Korea to Indonesia, Nigeria, Senegal and Romania. The PIAP GRYF machine, 48 kg in weight, is adapted to conduct neutralisation actions related to the use of the items and devices, including explosives.

A hybrid running gear system (wheel-cum-track), enables an efficient movement on every surface, in a varied terrain, as well as in the buildings (including movement on the stairways). The wheels can be quickly dismantled, which further reduces the vehicle's dimensions, and thus facilitates operations in confined spaces, eg on board of an aircraft.

The PIAP GRYF is equipped with, among others, the in-built guiding cameras, working infrared for use in daylight, or night time, as well as a high resolution camera equipped with an optical zoom with a 33 x magnification, and a grip camera that facilitates handling of the dangerous items. Steering is being carried out by a modern, large and lightweight con-

manipulation, and ensures smooth movement of the robot. A large touch display makes possible to evaluate from a safe distance the contents of a suspicious cargo, luggage, or even a construction of an improvised explosive device.



(<https://milmag.pl/2021/wp-content/uploads/2021/12/PIAP-IBIS-foto-Jaroslawn-Brdak.jpg>)A heavy pyrotechnic robot PIAP IBIS. Image: Jarosław Brdak

The PIAP IBIS robots that the Polish Police this year, are intended to operate in the conditions of a pyrotechnic threat, enabling handling, transport and remote disintegration of suspicious packages or improvised explosive devices.

The PIAP IBIS robots can operate, among others, inside public utility facilities, in terminals, sorting rooms, parking lots and runways – therefore in the area of airports, where there is a need to verify and neutralise luggage and packages, that would pose a potential threat. Large mobile robots can also be equipped with additional accessories, such as the pyrotechnic throwers, X-ray scanners, CBRN sensors (Chemical, Biological, Radiological, Nuclear threats) or explosives' detectors. Their important advantage is a distant operational reach, ensuring increased safety and comfort of work for the operators. Since 2011, the PIAP IBIS robots have been serving at

The smallest model among the robots sold this year is PIAP TRM, consisting of a tubular body containing: camera, microphone and white light and/or infrared illuminator. The running gear is consisted of two elastic, rubber wheels, fitted to both sides of the machine. The device is designed to be capable to fall from a height of 9 metres on a hard ground, and therefore the PIAP TRM robot can be thrown into an object (or anywhere in the open space) from a significant distance (15 – 20 metres), and perform the remote reconnaissance.

This tactical throwable robot can be equipped with accessories, i.e. blinding or stunning grenades. This enables to use it, for example, to disorganise and to cause panic among the group of potential assailants. The unique features of the PIAP TRM robot are a silent drive system, the ability to adjust constantly the camera view angle in a full scope of 360 degrees, without a need to use any additional tools, as well as the ability to use various types of LED illuminators. The advantages also include a lightweight control panel (1.5 kg of weight in the basic version), and its external dimensions, a digital recorder integrated with the control panel, or the ability to operate several robots from one control panel.