## BOMB DISPOSAL ROBOTS FOR THE POLISH POLICE


#### Abstract

Industrial Research Institute for Automation and Measurements - PIAP - has just delivered 10 bomb disposal robots for the Polish Police Headquarters. The contract concerned 9 medium-sized PIAP GRYF $®$ robots and a single, large IBIS $®$ platform. The latter is the first IBIS $\circledR^{\circledR}$ robot procured by the Polish Police.


GRYF® and IBIS® robots have been delivered with equipment dedicated for the bomb disposal units, including disrupters, X-ray imaging devices or shotguns. The EOD-technician may also use the robot's toolbank, including glass breaker, wire cutters or a knife for puncturing the tyres. Should radio interference be present in the operational environment, automatic drum with fibre optical wire would facilitate operations of the robot.

GRYF robots have been designed to carry out reconnaissance of restricted areas and locations that are hard to be accessed. The robots are equipped with a manipulator with five degrees of freedom, also offering an option of closing the gripping jaws, allowing the robot to carry objects with a mass of up to 15 kilograms. The wheels may be removed, which makes the system smaller and facilitates carrying out operations in narrow spaces.


Image Credit: Industrial Research Institute for Automation and Measurements

Thanks to the utilized drive systems, the robot is able to go over obstacles with slope of up to 45 degrees. Perfect maneuverability and modular design can be listed among the most distinguishable features of the platform. The robot is very light, which facilitates transport of the system, and its modular design allows the user to quickly reconfigure the device, with quick changes of the additional equipment involved.


Image Credit: Industrial Research Institute for Automation and Measurements
IBIS is a bomb disposal/reconnaissance robotic platform. Once fitted with additional devices, the robot in question may also be used to neutralize hazardous packages, or to carry out chemical reconnaissance and rescue operations.

