

## EUROPOLTECH 2017: POLISH INDUSTRIAL RESEARCH INSTITUTE FOR AUTOMATION AND MEASUREMENTS PRESENTS A NEW GENERATION THROWN ROBOT

**Industrial Research Institute for Automation and Measurements - PIAP - has presented a new variant of the Thrown TRM robot, during the Europoltech 2017 event. The system has been fitted with a heavier duty drive, A camera of greater capabilities, a more handy operator's panel with video recording capabilities, as well as an attachable flashbang transport/launching/detonating system.**

TRM robot (Tactical Thrown Robot) is a small, remote control device which is to support the operations carried out in dangerous and inaccessible environments. The system may be used both in enclosed rooms (at a range from 30 to 100 meters from the operator), as well as in the open space (in the latter case the range is greater - from 100 to 350 meters from the operator).



TRM Robot with the grenade launching mechanism installed. Image Credit: M.Dura

It is a small, portable and easy to use device. The robot itself, in its basic version, weighs 1.5

kilograms, and is capable of attaining speeds of up to 3.5 kilometers per hour. The basic equipment kit of the system includes a camera, microphone, white-light LED, and/or IR LED devices. There is also an option to adjust the angle of view of the camera within the range of 360 degrees, without any need to use a specialized toolkit. Thanks to the sensors applied, TRM makes it possible to carry out reconnaissance and surveillance tasks at a safe distance, remotely.

TRM is also resistant to mechanical damage, as it is able to withstand a fall from a height of 9 meters, onto a hard surface. It is assumed that the robot may be thrown at distances ranging from 15 to 20 meters.

This is yet another iteration of this class of system, proposed by the Polish Industrial Research Institute for Automation and Measurements. When compared to its predecessors, the TRM Robot showcased during the 2017 Europoltech event features the following enhancements:

- Less noisy motor, making it more difficult to detect the robot during the reconnaissance operation;
- Ability to carry a grenade transport/throwing/detonating mechanism (flashbangs/CS gas or smoke grenades);
- New, lighter and more portable control panel, making it possible to control three robots at once, and to record the whole TRM operation onto an SD card.

The internal battery allows the user to operate the robot from 2 to 4 hours, depending on the mission. It is charged with the use of car or grid power supply unit, and the whole charging procedure lasts from 2 to 3.5 hours.

TRM Robot, and all of the equipment needed to operate it, are altogether installed in a small transport case. The whole system (including the control panel) weighs 4.5 kilograms.