C-SENSOR (LCD 3.3)

CWAs identifier and TICs detector for mobile robot consists of the Smiths Detection LCD3.3 sensor and an integrated tailored housing allowing to use the device via mobile robot’s gripper or transport it in a holder mounted on robot’s mobile base. The sensor samples the atmosphere and analyses its composition using ion-mobility spectrometry to detect substances hazardous to humans. The device adapted for use with a mobile robot allows carrying out remote measurements/detecting presence of chemical warfare agents and toxic industrial chemicals vapours as well as determining hot zones borders. Sensor data is transmitted to the operator’s console in real-time.

MODULAR LIQUID SAMPLER

Modular liquid sampler is designed for collection and storage of liquid environmental samples with the use of mobile robot. Several types of collecting tips and sample container holders can be attached to this device. Collected samples can be stored in two types of containers: a bellow bottle with a capacity of 200 [ml] or glass vials with a capacity of 4 [ml].

PIAP BIO-VORTEX

The device is designed to collect and store liquid samples of biological pollutants from ambient atmospheric air. Collected watered pollution sample can be transferred either to the sample container (included as a part of the device) or to an external analyser. The container with a sealed sample can be gripped by a robotic manipulator, detached from the device and then transferred for further laboratory analysis. Easy and tool-free replacement of the contaminated device elements allows the device to collect several samples without a need for in-between decontamination.
**R-SENSOR (ZR-1)**

The device allows omni-directional measurement of gamma dose absorbed in the air and it was designed to be used as a detector-meter during the incidents where ionizing radiation is or may be involved. Information from the radiometric sensor is transmitted in real time to the operator’s console. The device can be operated remotely from the operator’s console or manually via touch user interface.

**R-SENSOR (ZR-2)**

The device allows directional measurement of gamma dose rate and detection of neutron radiation and it was designed for use as a detector-meter during the incidents where ionizing, X-ray or neutron radiation is or may be involved. Information from the radiometric sensor is transmitted in real time to the operator’s console. The device can be operated remotely from the operator’s console or manually via touch user interface.

**WEATHER STATION**

The device mounted on a mobile robot allows to perform meteorological measurements in the robot’s vicinity in terms of wind speed and direction, precipitation, atmospheric pressure, temperature and relative humidity. Information from the weather sensor is transmitted in real time to the operator’s console. The device can be operated remotely from the operator’s console or manually via touch user interface. Information provided by weather station is of a particular importance in the incidents related to CBRN contamination, as it allows to estimate the direction and extent of contamination spread.