

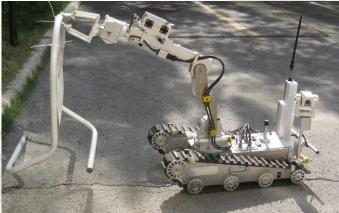
1.0 GENERAL FEATURES

ESR-EOD-1701-P Bomb Disposal Robot is an effective and safe solution that can be used to prevent loss of life or property in many different dangerous conditions.

- Bomb disposal
- Surveillance
- Search and rescue
- Taking images
- Unmanned reconnaissance

It can be used in different tasks such as:



























2.0 PHYSICAL PROPERTIES

*Weight:

70.8 kg (weight without accessories)

*Dimensions:

53cm width x 50cm height x 100cm length Maximum height 150cm Maximum length 185cm

*Maximum Speed:

 $1.8 \, \text{km/h} \, (\text{track}) - 3 \, \text{km/h} \, (\text{wheel})$

*Capacity:

5 kg (arm open) - 10 kg (arm closed)

*Working conditions:

In all climatic conditions, between -10 - +50 Co

*Climbing Ability:

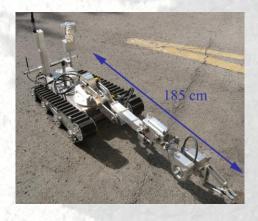
40 o inclined path and stair steps

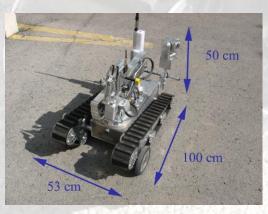
*Maneuverability:

It can rotate 360 degrees around its center (in a circle with a radius of 35 cm)

*Control distance:

300 m (RF Communication), 150 m (Wired communication)

























3. 3.0 GENERAL STRUCTURE

3.1 MOTION SYSTEM

The movement of the Bomb Disposal Robot is provided by a double pallet system located symmetrically on both sides of the body.

- Special design that allows holding on inclined and stepped surfaces
- Tire structure that allows use on different surfaces such as asphalt, concrete, soil and grass
- Gear system with three different speed levels
- Easy to use with a single joystick
- Spring system that makes tire changing easier

























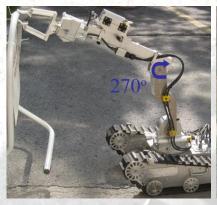


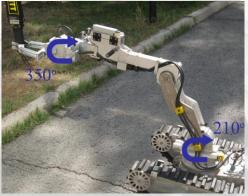
3.0 GENERAL STRUCTURE

3.2 Manipulator system

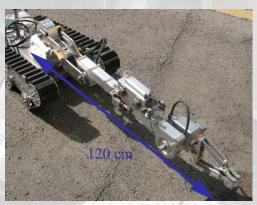
The manipulator system of the Bomb Disposal Robot consists of 3 parts: turret, arm and hand.

- The turret part can rotate 300 degrees on the body.
- The shoulder connection connecting the arm part to the turret can rotate 210 degrees.
- The elbow part of the arm has the ability to rotate 270o.
- The hand part can be rotated up to 3500 around the arm connection point. It also has unlimited rotation around the wrist.
- The arm can reach up to 120 cm in its most open position.
- Thanks to the rubber tires in the hand system, it is possible to grasp many types of materials easily.
- There is overcurrent protection in the manipulator system. In this way, the possibility of damage to the system due to loads it cannot carry is reduced.



























3.0 GENERAL STRUCTURE

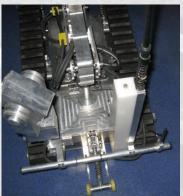
3.3 Control system

Remote control of the Bomb Disposal Robot can be done via wired or RF systems.

- The RF system works through the antennas on the robot and control panel.
- In the RF system, communication is possible up to 300 meters in open areas.
- A wired system should be used to ensure that the robot can work in environments where mixers may be present.
- The cable system consists of a 150 meter long cable and reel with sealed connectors on both sides.
- The cable reel weighs 23.4 kg and can be carried easily.



























3.0 GENERAL STRUCTURE

3.4 Image and Sound System

4 cameras were used to exchange images between the Bomb Disposal Robot and the control console.

- Surveillance camera

Unlimited pan and tilt movements, iris, zoom and focus features

- Driving camera

It has a wide-angle lens that provides great convenience while driving.

- Handheld camera

It helps in interventions that require precision by robot hands.

- Aiming camera

The Aker gun provides ease of use.





























