Reacher



Description

Reacher is a new state of the art bomb disposal robot with exceptional reach and dexterity. Reacher is the first robot in the industry to have a powered payload/toolbay drawer to store weapons, tools, and a smaller robot designed to go under cars. Reacher has a sliding turret with $\pm 220^{\circ}$ rotation which assists in accessing those difficult to reach areas.

Drive System

Reacher has a powerful 1200 Nm traction drive system with steerable back wheels. This ensures high battery efficiency due to consuming less power on turning and direction adjustments than traditional skid-steering only robots. Reacher can also provide skid steer for manoeuvring in tight spaces. The rocking back axle and central bogie ensure Reacher can easily traverse the most challenging of terrain.

Sliding turret & integrated payload/ toolbay drawer

The forward and reverse sliding motion of the rotating turret further increases the reach and manoeuvrability of the robotic arm. The sliding turret provides access to the integrated payload/toolbay drawer. Stability while reaching and lifting is ensured by a central bogie locking mechanism.



Under car robot

Reacher carries the Remote Disruptor Platform [RDP] within its payload/toolbay drawer and can deploy it when observation or disruptor capabilities are needed in low clearance situations.



Mechanical Features

- · Manipulator arm with 6 degrees of freedom
- · Turret rotation: ±220°
- · Gripper rotation: 360° continuous
- · Arm lift capacity: 120 kg+
- Reach: 250 cm horizontal reach, and 205 cm level ground pickup from edge of front wheels
- · Reach: 305 cm vertical
- · Stow dimensions: 152 x 72 x 113 cm
- · Speed: 7 km/h
- Weight: 450 kg [including batteries, excluding tools]
- Climbing ability up to 38°
- · Zero point turning capabilities
- Powered payload/toolbay drawer

Optional Features & Accessories

- Remote Disruptor platform [RDP] for under-car or low clearance operations
- · 3rd party CBRN sensors
- · Accessory cameras for custom views
- Optimised x-ray system for military narrow band radio systems [robot deployable]
- Reacher training simulator [plug in unit for command console that simulates robot in various scenarios]
- · 150 m cable drum for ECM operations
- · Customisable disruptor kits and brackets available
- · Multiple fail-safe firing options available

Communication

Command Console

- · Rugged hard-wearing weatherproof case
- · 19" high res daylight readable video display
- · Quick 5 second start
- · Easy to use intuitive user interface
- · Sensitive joysticks include twist to zoom
- Advanced 10" TFT touch screen; works in direct sunlight and while wearing gloves
- Real-time graphical feedback gauges including
 robot inclination
- · Up to four cameras can be viewed simultaneously
- Camera environment settings for improved light levels
- Key activated weapons screen with self-tests and diagnostic feedback
- Customisable radio solutions available including COFDM and MIMO technology
- Weight 17 kg

Wireless Hand Controller

- · Rugged, portable, hand-held controller
- · Full electric actuator control
- · Dead man switch for drive control safety
- · LED indicator for battery and comms range
- · 4 hrs battery life



