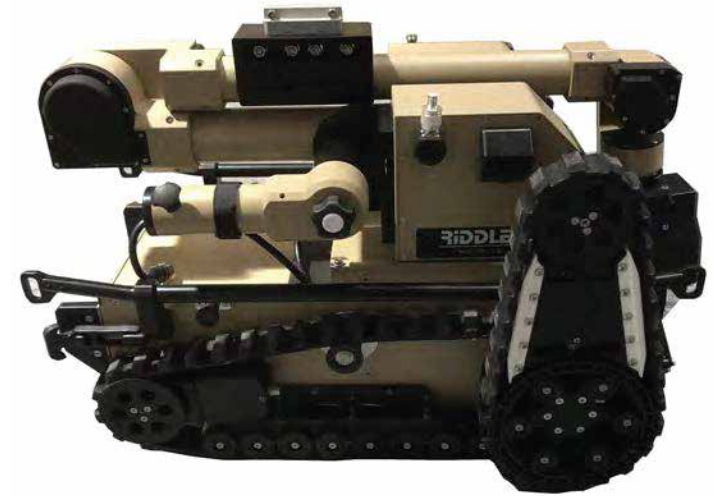


Riddler



Description

Riddler is an advanced, reliable and robust explosive ordnance disposal robot with applications extending to security, CBRN, and X-ray. Riddler's manipulator arm has five degrees of freedom [DOF] which are driven by electric actuators. It has a remotely operated fail-safe firing system.

Communication

Riddler is controlled by an advanced intuitive command console which relays radio signals up to 1 km non-line-of-sight via MIMO MESH radio link. The command console comprises of a 19" high resolution daylight readable video display and 10.1" touch screen. Headphones facilitate two way audio communication with the robot. The large rear battery drawer can take up to 6 x BB2590 batteries for 8 hours of operation.

Optional Features & Accessories

- 3rd party CBRN sensors
- Real-time X-Ray System [robot deployable]
- Reverse audio between Command Console and Riddler
- Riddler training simulator [Plug in unit for Command Console that simulates robot in various scenarios]
- Fail-safe firing system

Pan & Tilt Camera

- Left and Right rotation: $-180^{\circ} \sim +180^{\circ}$
- Up/Down rotation: $-45^{\circ} \sim +90^{\circ}$
- Optical Zoom: 10x
- Day and night camera, Thermal imaging cameras can be connected

Features

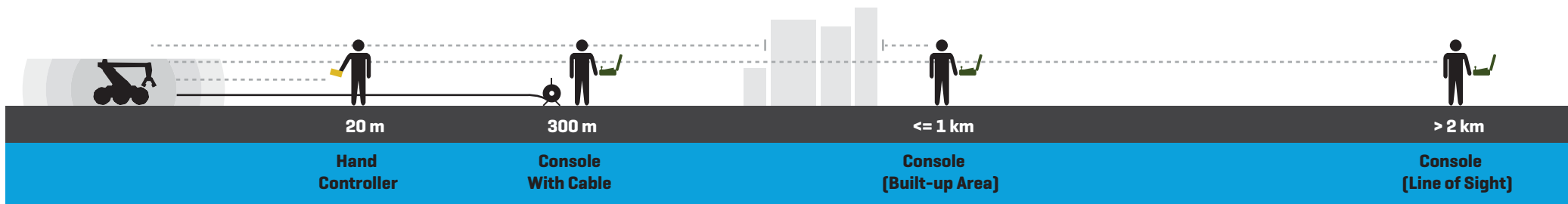
Long range operation via the Command Console [up to 1 km non-line-of-sight]
Compatible with wide range of Disruptor's
Operating time: up to 8 hrs [mission dependent]
Pigstick and Hotrod Disruptor Firing without ejecting Disruptor
Fail-safe firing circuit
6 colour cameras as standard and 2 auxiliary camera ports
5 Independent spotlights
Multiple MESH radio options
All joints are protected by clutches in case of crash or fall
Front tracks have dampening system to protect them from crash or falls
Tool Changing Gripper with power and data port
Rear sliding Tool-bay with power and data port
Large capacity rear battery drawer can take up to 6 x BB2590
Robot, including motors, etc. is IP65 certified

Height	44 cm
Length	73 cm
Width	44.4 cm
Weight	80 kg
Speed	6 km/h
Payload	50 kg
Operating temp	$-25 \sim 50^{\circ}\text{C}$



Tel +353 (0) 66 7120500
Fax: +353 (0) 66 7117475

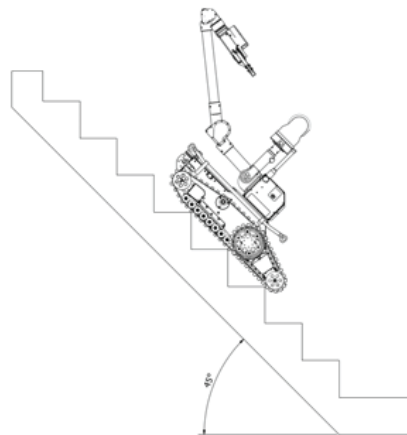
Email: info@reamda.com
Web: www.reamda.com



Mechanical Features

- Manipulator arm with 5 degrees of freedom
- Manipulator arm weight: 19 kg
- Turret rotation: 360° continuous
- Gripper rotation: 360° continuous
- Shoulder: 225° Elbow, 270°, Wrist 250°
- Arm lift capacity: Extended: 19 kg
Retracted: 50 kg
- Two heavy duty tracks which allow travel over the most difficult of terrains
- Main Cameras in 6 total: Front/Rear Drive, Turret Forward/Side, Gripper Zoom, PTZ Mast Zoom Camera with 40x magnification performance
- Gripper camera and camera arm controlled independently from the command control for maximum effectiveness

Climbing Ability



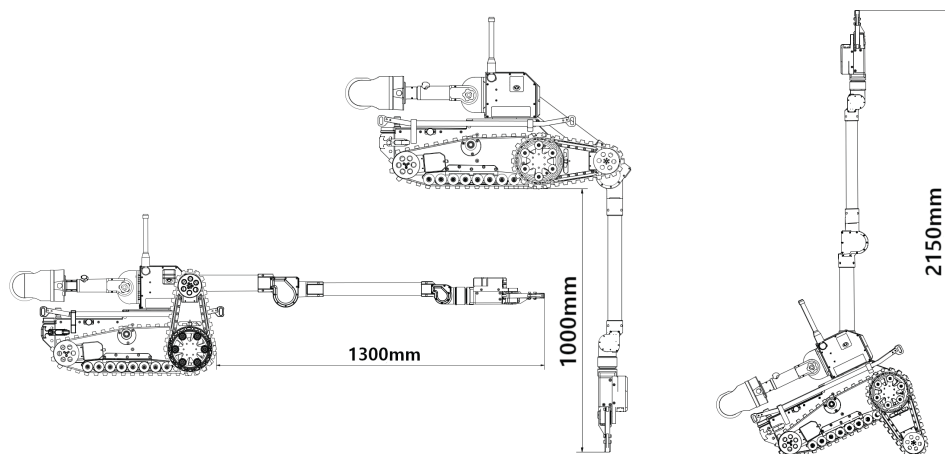
Communication

Command Console

- Rugged hard-wearing weatherproof case
- 19" high resolution and anti-reflective, daylight readable video display
- Easy to use intuitive user interface
- Sensitive joysticks include twist to zoom
- Advanced 10" TFT anti-reflective 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 improve light levels
- Key activated weapons screen with self-tests and diagnostic feedback
- Two-way communication between command control and robot via speakers or headphones
- Up to 4 images on screen at any one time with light management/control settings for Video camera selection and screen splitting, mission module and light system management
- Multiple radio options available
- IP65 certified
- Weight: Standard: 17 kg
Lightweight: 6 kg



Reach



Multiple Radio Options

Domo DTC	SOL08 1W 2x2 MIMO MESH/MANET
Silvus	SC4200E 4W 2x2 MIMO MESH/MANET
Persistent	MPU5 4W 3x3 MIMO MESH/MANET