

# R-Evolve

Cobham COFDM radios.  
Operating range up to 1  
km in built up areas, &  
1 km+ line-of-sight

PTZ Camera

Variable speed control of  
electric actuator arm

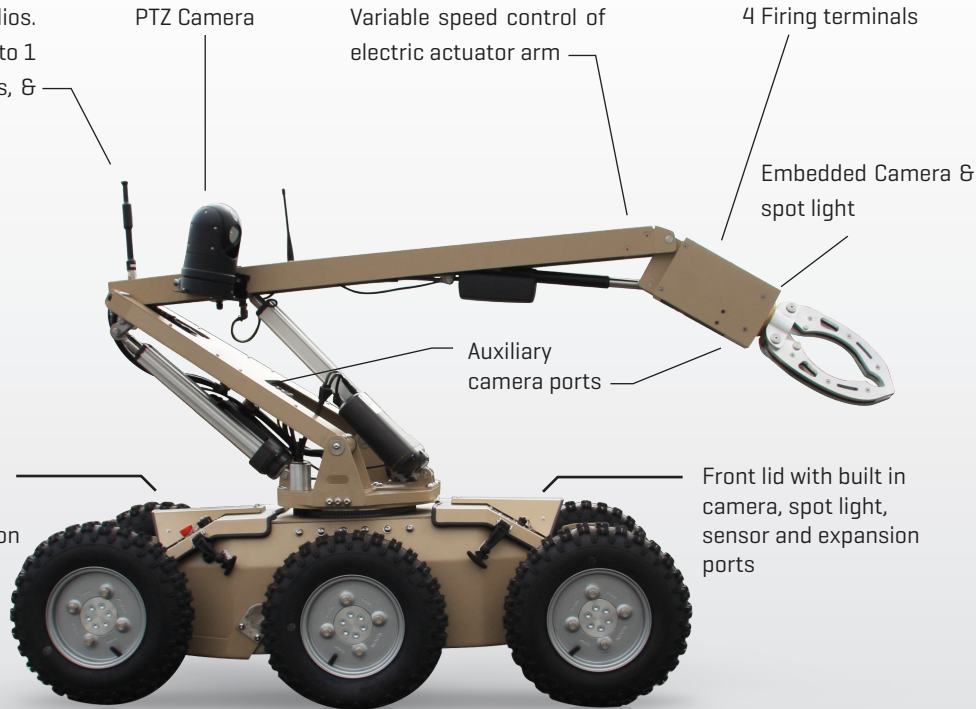
4 Firing terminals

Embedded Camera &  
spot light

Auxiliary  
camera ports

Rear lid with built in  
camera, spot light,  
sensor and expansion  
ports

Front lid with built in  
camera, spot light,  
sensor and expansion  
ports



## Description

R-Evolve is an advanced, reliable and robust bomb disposal robot with applications extending to CBRN. It has six independently driven wheels with an actuated controlled back axle to allow for travel over the most difficult of terrains. It has a manipulator arm with six degrees of freedom and a lifting capacity of 75 kg retracted and 30 kg extended.

## Communication

R-Evolve is controlled by an advanced intuitive Command Console which relays radio signals up to 1 km non-line-of-sight through Cobham's proven COFDM link. R-Evolve can also be controlled by a wireless Hand-Controller which is ideal for loading/unloading R-Evolve and for close-by control [up to 20 m range]. Different frequency options are available on request. A cable control option is also available for operation in Electronic Counter Measure [ECM] conditions.

## Features

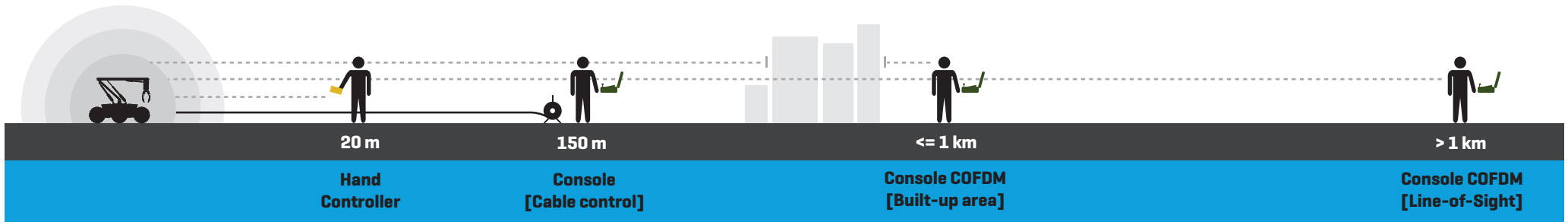
- Can Bus architecture [10 nodes]
- Quick 3 second system start
- 4 nitrogen purged cameras & 2 auxiliary camera ports
- Synchronised cameras for flicker-less switching
- Fail-safe weapons module with full diagnostic feedback
- 4 independent fail-safe firing channels at 24 V
- Configurable with a choice of multi-vendor disruptors
- Ruggedised smart charger unit
- Variable speed Pan/Tilt unit
- Nitrogen purged radio enclosures
- Transparent data bus for third party sensors
- Integration with real-time X-ray
- Up to 4 hours of operation mission dependent
- Custom configurations available
- 12 months warranty

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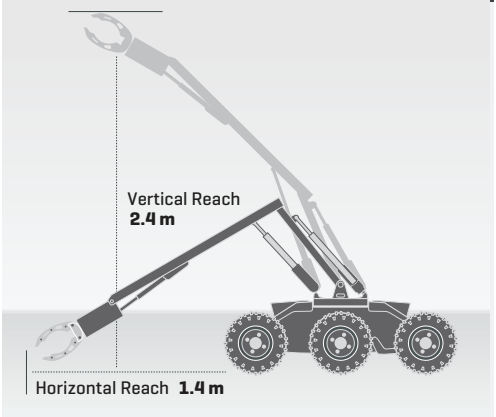
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### Mechanical Features

- Electrically powered manipulator arm with 6 degrees of freedom
- Lift: 75 kg retracted, 30 kg extended
- Turret rotation +/- 220 °: 440 ° total
- Gripper rotation continuous bi-directionally
- Typical weight 270 kg
- Speed: 8 km/h
- Stow dimensions [LxWxH]: 1550 mm x 720 mm x 1000 mm
- Actuator powered adjustable rear axle for improved climbing

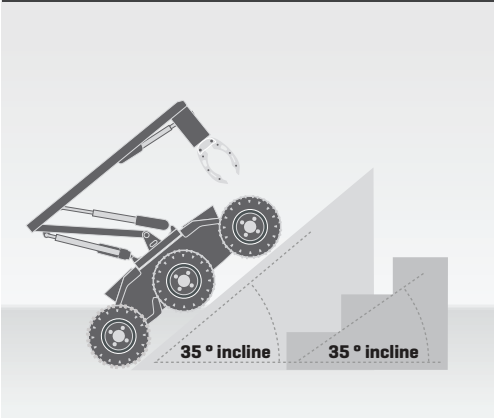
### Reach



### Optional Features & Accessories

- Cable & drum 150m for ECM conditions
- Integrated CBRN sensors
- Remote Disruptor Platform (RDP) for under-car observation & disruption
- Real-time X-ray System [robot deployable]
- Reverse audio between Command Console and R-Evolve
- R-Evolve training simulator [Plug in unit for Command Console that simulates Robot in various scenarios]

### Climbing Ability



### Communication

- Command Console**
- Rugged hard-wearing weatherproof case
  - 19" high res daylight viewable 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
  - Picture-in-Picture feature to show two switch-able camera feeds simultaneously
  - Camera environment settings for improved light levels
  - Key activated weapons screen with self-tests and diagnostic feedback
  - 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 hr battery life

