

# MIRRAX DATA SHEET

## MINIATURE ROBOT FOR RESTRICTED ACCESS EXPLORATION

*This document aims to provide the specification for the MIRRAX platform prototype (TRL5). The information provides the operator with the limitations and capabilities of this platform for any given operation. please contact:*

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The table to the right show the key point of the platform for any given operations. Some key points will now be covered in more detail for further understanding;

**Speed range** – This is the maximum speed the robot can travel both forwards, backwards and sideways.

**Turning Speed Range** – This is the maximum turning speed of the robot can turn in either direction (note both speed ranged can work together at the same time).

**Mapping range** – This is the total distance the 2D LIDAR sensor can detect in 270° (radius)

**3D Map Resolution** – This is the smallest angle resolution of the LIDAR making 3D maps.

**Tether Length** – This is the maximum distance the robot platform can be from the base station for full signal strength. Any more distance will result in loss in communication. Battery is installed on current version with tether to be implemented at a future date.

**Base Station Voltage** – This is the voltage range that the base station can accept

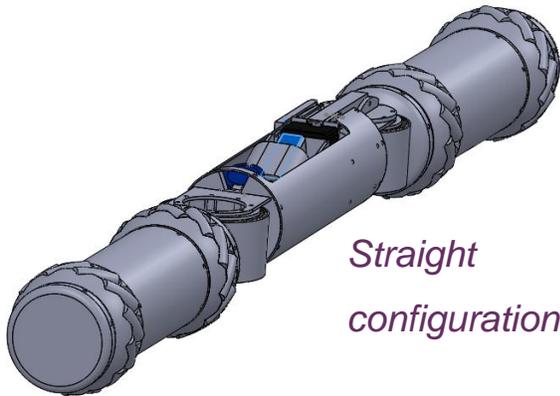
**On-Board Voltage** – This is the voltage the robot platform operates at

## KEY DATA POINTS

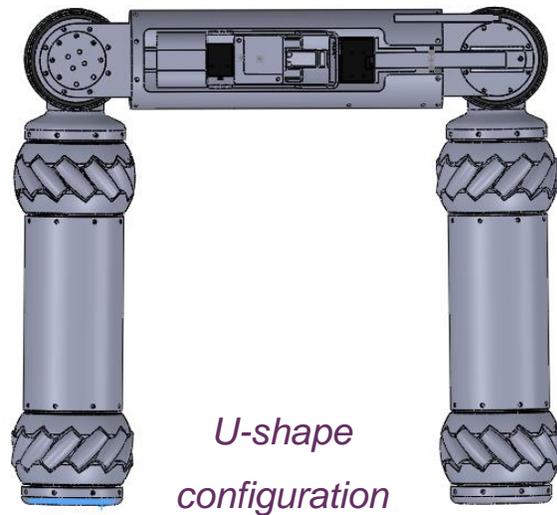
Speed Range	+0.15 M/S
Turning Speed Range	+0.1 RAD/S
Mapping Range	20 M
3D Map scan time	30S
3D Map Resolution	0.25°
Tether Length	TBD
Base Station Voltage	110V – 230V @ 3A
On-Board Voltage	48V (TETHER) 12 V (BATTERY AND ELECTRONICS)
Weight	10 KG
External Dimension (extended)	1300 X 125 X 125 MM
External Dimension	500 X 500 X 500 MM
Access Port Diameter	125MM

# MIRRAX DATA

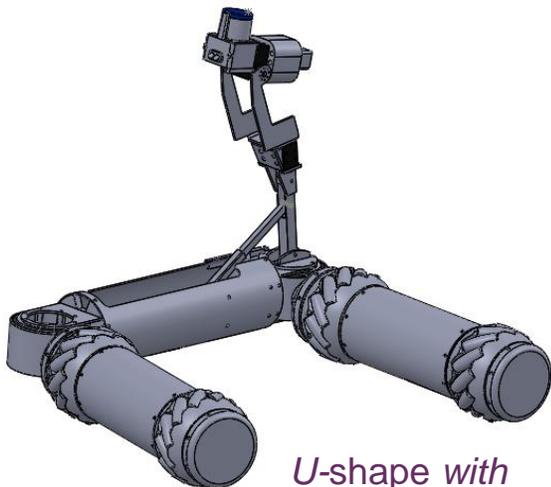
## SHEETCONFIGURATIONS



*Straight  
configuration*



*U-shape  
configuration*



*U-shape with  
arm raised*