

# **SPECIFICATIONS FOR RESCUE**

## **ROBOT.**

Part	Function	Criteria	Level
Tyres	Expected to drive on any type of terrain	<ul style="list-style-type: none"> <li>• Speed</li> <li>• Strength</li> </ul>	40km/h- 200km/h 4wd
Car shape	Expected to drive both on land and in water	<ul style="list-style-type: none"> <li>• Speed</li> <li>• Strength</li> <li>• Agility</li> </ul>	Speed limits should be between 40km/h – 200km/h
Engine	Strong enough to properly control the wheels	<ul style="list-style-type: none"> <li>• Agile</li> <li>• Water resistant</li> <li>• Compact (fewer or no air spaces)</li> </ul>	High performance VEE engine is preferable. Should be a Rear mid-Engine, Rear wheel drive
Electric motors	To be able to drive the propellers while in water	<ul style="list-style-type: none"> <li>• Agile</li> <li>• Water resistant</li> </ul> Compact (fewer or no air spaces)	Power range should be between 0.75 to 375 kW, with IE3 efficiency level

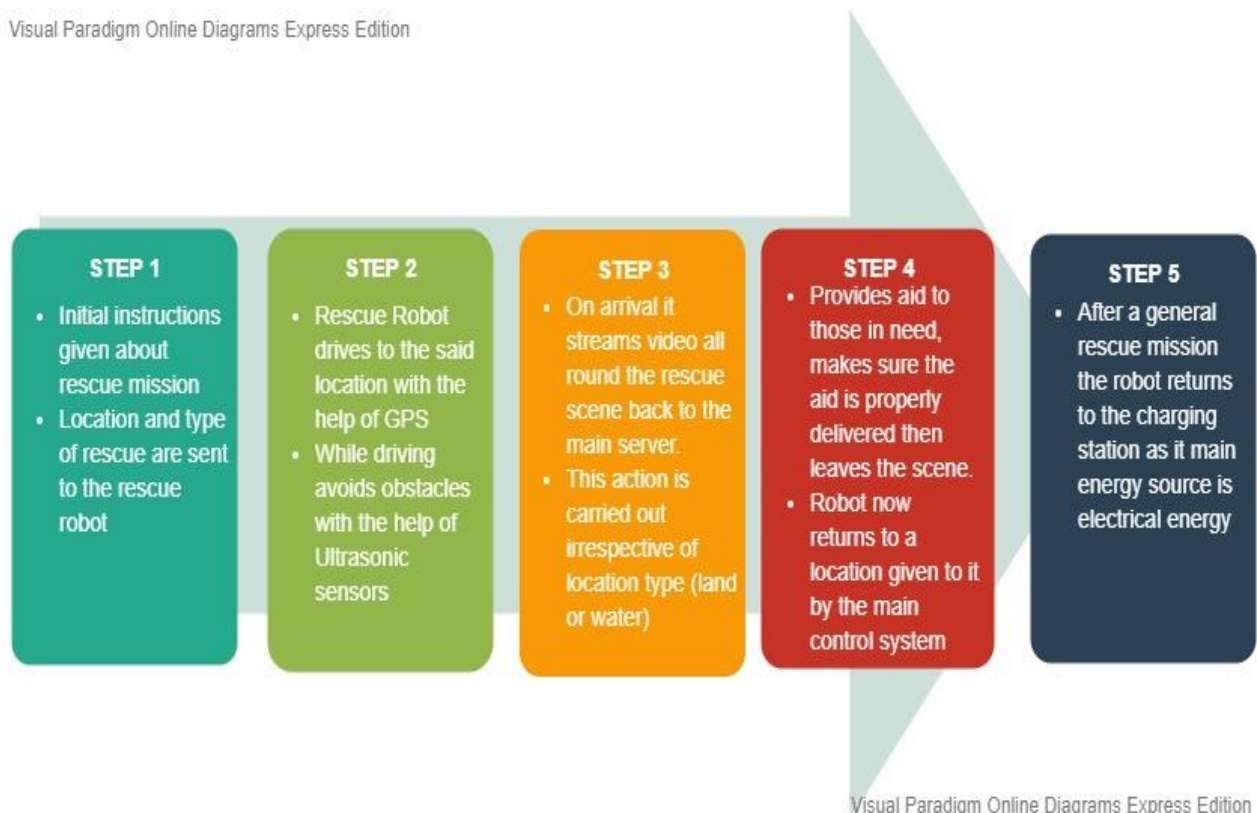
Storage (for first aid)	Area for storage of Aid equipment	<ul style="list-style-type: none"> <li>• Spacious to contain a lot of articles</li> </ul>	It should be between 120mm by 90mm (4.72441inch by 3.54331)
Wheelbase	NA	NA	2,650 mm (104.3 in)
Length	NA	NA	4,702 mm (185.1 in)[
Width	NA	NA	1,992 mm (78.4 in)
Height	NA	NA	1,116 mm (43.9 in)
General Structure	NA	Curb weight	1,585 kg (3,495 lb

## **AFFORDANCE AND SIGNIFIERS:**

Signifiers	Affordances
Storage (A big red cross on a box)	Storing first aid, and can also carry a maximum of four human
Picture of an arm	<ul style="list-style-type: none"> <li>• Able to lift humans</li> <li>• Also can deliver aid</li> </ul>

We use IP65(Ingress protection code) code on camera casing to indicate water and dust resistance	Stream videos and take pictures simultaneously.
Electric symbol with a skull to represent the area for storage with the electric components.	.Able to store all electric equipment
Shape	Possibility of driving both on land and on water
White and Red color of car	Sends warning signals for all other cars to clear its path

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**Simple schematic of how the Rescue Robot works.**