High Void Mk7 Robot

A fully equipped underfloor robot capable of spraying insulation and verifying the install quality in voids up to 800mm height.

9-bot

OVERVIEW

Powerful

This robot has Brushless DC motors throughout, delivering the same power for its size as a formula one car, with enough traction from the custom tyres to overcome various sorts of obstacles.

Intelligent

The laser mounted in the rotating turret enables the robot to scan the underfloor space in 3D before and after the installation. This allows the installers to verify the quality of the work and keep a record of the installation.

Adaptive

The wheels can be set on four different height options to adapt the robot to the condition of the underfloor and void height. Each wheel can easily be detached from the chassis to fit the robot through narrow access points.

Enhanced Vision

The robot has both front and rear facing cameras, with a wide field of view, combined with lights that enable a good understanding of the environment. A depth camera at the front of the robot gives the installer feedback about the depth of insulation applied.

Comprehensive User Interface

The simple, streamlined design gives maximum screen area for the view from the cameras and the sensor feeds. The robot is controlled entirely by the joypad. The user is able to feel immersed in the job - as though they are alongside the robot spraying.







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210 mm

Robot

Weight	22kg
Dimensions	500L x 400W
(mm)	See diagram for heights
CPU / GPU	Quad-Core ARM A57 / NVIDIA
	Maxwell with 128 NVIDIA
	CUDA [®] cores
Camera	5MP (165°D.F.O.V.)
Sensors	Depth Camera
	Laser

Robot Performance

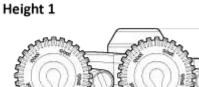
Operating	48V supplied to the robot via
Voltage	tether
Power	480W (10A at 48V)
Wheels Output	48Nm total
Torque	
Max. Speed	0.25m / sec
Noise Level	< 80dB during spraying

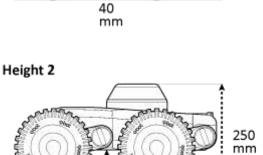
Control Unit

Weight	8kg
Dimensions	505 L x 355 W x 120 H
CPU / GPU	Intel i7, 16GB DD4 & 500GB
	SSD
Screen	16" Full HD
Power Input	110V 16A
Power Output	48V at 10A
Tether Lengths	15m, 30m, 60m
Tether Rating	150kg

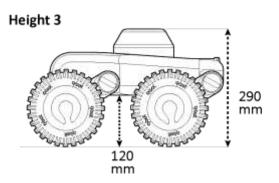
Environment Operational Conditions

Practicable Terrains	Hard, sandy, rubble, soil
Ambient Temperature	0 to 45 degrees Celsius





80 mm



Different robot heights and corresponding floor clearances.