



Machine protection for AGV's

DeZone

DeZone makes the AGV see obstacles in it's path!

DeZone is a 3D-vision based system that helps the AGV to discover any obstacles in its path, slowing it down to stop in a safe manner.

DeZone protects the AGV from damage by detecting objects missed by the normal safety features such as the forks of a manual fork lift.



DeZone uses different setup cases with two slow-down zones and one stop zone for each case.

DeZone communicates directly with the AGV with 20 updates per second.

Contact us or visit our website www.maxagv.com to read more about our systems!

DeZone is managed from a SetupTool

DeZone is managed from a SetupTool that can be installed on a server/local computer for remote update over WiFi or on a laptop for direct wired connection. Cases and zones for slow-down and stop, among other features, are editable from the SetupTool.



Mounting

It is recommended to mount the DeZone around $1\,800$ mm above the floor, pointing downwards in an angle of 45° . Do not exceed 2000 mm above floor to still detect objects according to specifications.

Communication ports

Communication between DeZone and SetupTool requires the following ports to be opened on the computer running the SetupTool. SetupTool computer also needs to be able to send Ping messages.

TCP Port	Description
445	SMB file transfer
32201	SSH connection
32253	Display 3D data in Setup software
32254	Manage Dezone2 software
32255	Setup Dezone2 software



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SPECIFICATIONS

SYSTEM: Dezone2 **MODEL:** U2-435-2

TECHNOLOGY: The system uses 3D stereo vision.

PERFORMANCE: 20 updates/s.

FIELD OF VIEW: 85° hor, 58° ver, \pm 3° both directions **LIMITATIONS:** Measurement range is 0.2 m up to 4 m

with a width up to 2.2 meters (± 1.1 m).

Minimum size of objects to detect is 100 mm height from the floor with an area of $150 \times 150 \text{ mm}$.

MOUNTING: Recommended mounting of Dezone2 is 1800 mm above the floor pointing downwards in an angle of 45°.

HARDWARE: UP Squared with Linux Ubuntu server 16.04.5, Intel RealSense depth camera D435.

POWER REQUIREMENTS: 9-75 VDC @40VA.

INTERFACES: Sonix communication methods are TCP/IP or serial interface either by RS-232 or RS-422, available in a 9-pin male D-Sub.

Pinout 9M-DSUB:

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Pin	RS-232	RS-422
1		B (Rx-)
2	RxD	A (Rx+)
3	TxD	Z (Tx-)
4		Y (Tx+)
5	GND	GND
6		
7		
8		
9		



