

3DV-A is a stereoscopic system able to provide full 3D reconstruction of the scene framed by two cameras



SPECIFICATIONS

Camera Size	277X37X42 mm
with enclosure (optional)	307X60X64 mm
Baseline	120 mm or 240 mm
Camera rate	IP 41
with enclosure (optional)	IP 65
Embedded PC size	210X265x66 mm
Embedded PC rate	IP 41
Weight	Approx. 4 kg
Working temperature	0-40 °C
Power supply	12 or 24 V DC
Power consumption	Approx. 100 W
Basic output	DSI Map, Left and Right Image
Additional outputs	Depending on plugins
I/O	Gigabit Ethernet, Trigger (optional)

MODELS

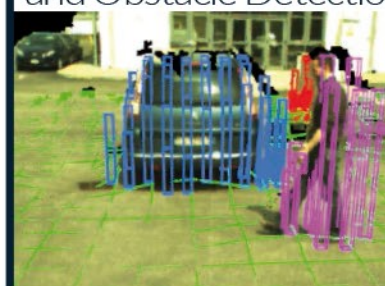
ID	Resolution [pixels]	Depth Map [pixels]	Baseline [cm]	Lens [mm]	FOV [°]	Min Dist. [m]	Accuracy [m] @ distance [m]		
							close	medium	far
CS1	1280x960	640x480	24	3.8	66	1.8	0.01@2.1	0.5 @15	1@21
CS2	1280x960	640x480	12	3.8	66	1	0.01@1.5	0.5 @11	1@15
CS3	1280x960	640x480	24	6	43	3	0.01@2.8	0.5 @20	1@28
CS4	1280x960	640x480	12	6	43	1.5	0.01@2.0	0.5 @14	1@20
CS5	1024x768	512x384	12	6	43	1.3	0.01@1.8	0.5 @12	1@18

Other configurations are also available. Check our website for the complete list.

3DV-A DSI Map



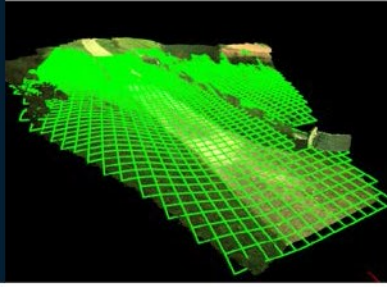
3D Terrain Mapping and Obstacle Detection



Pedestrian and Vehicle classifier



3D Terrain



Visual Odometry



Lane Detection



AVAILABLE PLUGINS

- Terrain Mapping (TM)
- Obstacle Detection (assuming flat ground) (OD)
- Terrain Mapping + Obstacle Detection (TM + OD)
- Pedestrian and Vehicle Classification (CL)
- Visual Odometry (VO)
- Lane Detection (LD)

Other plugins are also available. Check our website for the complete list.

The following table shows the output rate for a single frame computation with different plugin combinations at the specified distance.

* Processing rates are referred to a test made in a rural environment with medium traffic conditions. Check our website for more information about plugin performances.

Plugin combination	Output rate* [Hz]@40m[m]
TM+OD	10
TM+OD+CL	10
VO	9
TM+OD+VO	8
TM+OD+CL+VO	7

SERVICES

- VisLab website access
- Access to the VisLab online calibration tool

Included in each 3DV-A purchasing:

- 1 year access to the VisLab online calibration tool
- Firmware updates

OPTIONALS

- Trigger
- Camera enclosure

FRAMEWORK COMPATIBILITY

ROS Hydro

RTMaps

ADTF 2.9.0 with Visual Studio 2010



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