Stereo Camera

The date sent in the video based teleguide are jpeg images of 1280x480 pixels that are two images of 640x480 provided by the left and right on-board camera.

MORDUC has a STH-MDCS2-VAR Stereo camera. It consists of two high quality stereo cameras [31] which have 1.3 megapixel resolutions. They have 4.0 mm fixed focus lenses. CMOS sensors of these cameras have a good noise immunity and sensibility; moreover, it is possible to adjust all the image parameter, e.g. exposure gain, frame rate, resolution. The cameras are mounted on a rigid support; it permits to simply adjust the baseline in a range 5-20 cm. The images come from the two cameras are synchronized with an 8 KHz clock, generated by using IEEE1394 interface

Camera Model:	STH-MDCS2-VAR
Video formats @ Frame rate:	High frame rates – 30 Hz for 640x480, 7.5 Hz for 1280x960
Sensor Specifications:	CMOS
Connection:	IEEE 1394 interface to standard PC hardware – carries power and commands to device, data to PC
Variable baseline:	5 – 20 cm
Focal Length:	4.0 mm
Horizantal Angle of view (1/2” format)	~51°

8 Sonar SRF08

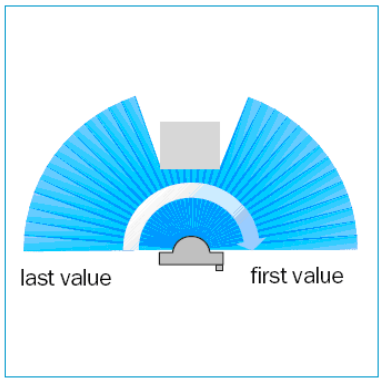
The sonar sensors measure the distance from an obstacle.
The Robot have 8 sonar sensors, then is possible read:
8 misure of distances: double
8 misure of light: integer;

Odometry

X,Y, Theta: double.

Laser

It is possible read 181 integer



The data sent in the laser based teleguide are jpeg images of 200x200 pixels.