Mobile Robot for Study of Robotics Systems in Agriculture

Overview

The Mobile Robot test bench has been designed for robotics experiments in the agricultural field. It can be used for design and debugging of robotic algorithms as well.

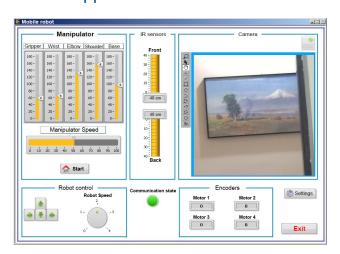
The robot has been designed based on the virtual instrumentation technology of National Instruments. The platform is programmable and controllable using a personal computer.



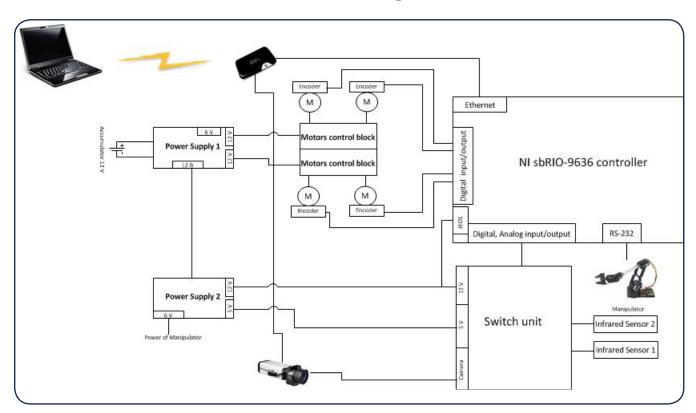
Features

The Robot is based on four-wheeled mobile platform and is equipped with 2 infrared distance sensors, four motors with encoders, a manipulator with four degrees of freedom and a color IP camera.

Special program allows the users to control the robot and to collect data from sensors. The robot software is developed in the LabVIEW graphical programming environment. All virtual instruments (VIs) included in the software are available in open form that allows users reuse them in development their own applications.



Schematic Diagram



Technical Specifications

Environment Temperature	from +10° to +35°C
Relative Humidity	less than 80% at temperature of 25°C
Required Power	less than 15 W
Dimensions (Lx Wx H)	(270x200x150) mm
Weight	less than 5 kg









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