

Workshop on Actuation & Sensing in Robotics

Session B - Sensing

B3

A sensitive skin for mobile robots

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Human-robot interaction in a shared workspace permits and often even requires physical contact between humans and robots. One of the effective ways to monitor contact forces is to provide a robot a tactile sensor as a pressure sensitive skin.

This presentation introduces a pressure sensitive skin for a mobile robot which can be adapted to complex geometries and offers reliable contact measurements on the entire robot body. We discuss the sensor setup and describe the hardware implementation. Finally we give an outlook about the algorithms going to be implemented to the robot system.



“LiSA“



“DENISE”

Figure - Examples of robots already equipped with the sensitive skin.