

# SensorBot 2002

Jimmie Landerman

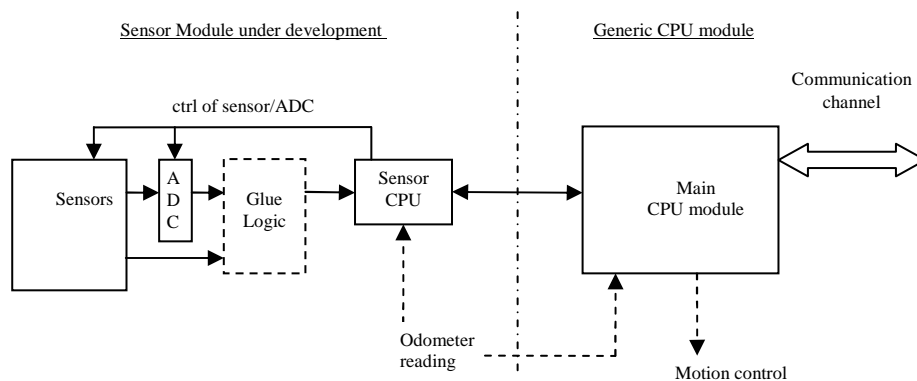
ZMP Inc, KY Roppongi Bldg. 3-4-7 Roppongi,  
Minato-ku, Tokyo 106-0032, Japan  
jimmie@zmp.co.jp  
<http://www.zmp.co.jp/sensorbot>

## 1 SensorBot Team

Development was initiated on a search and rescue robot named SensorBot in early 2002. In the short-term the research focus are directed towards sensors, electronics interfacing the sensors and sensor data information fusion. This research should result in a sensor module that can be used on available mobile platforms for demonstration purposes and as a research platform for sensor data fusion.

At RoboCup-Rescue 2002, we will demonstrate a prototype of the sensor module and hope to get feedback and new ideas for further development from the international research community.

The prototype is focused on inertial navigation and thus includes acceleration sensors and gyros, but also a magnetic compass and a temperature sensor for the possibility to compensate for deviations resulting from temperature differences. The data from the sensors are fused with odometer data from the mobile platform that give a realistic possibility to actually track the path traversed by the robot in reality. Fig 1 shows a simple picture over the system design.



**Fig. 1.** System design of the sensor module.

Team leader and currently only team member is Jimmie Landerman.