



RoboCup Rescue
Robot League Competition
Padua, Italy
July 4-11, 2003

PARTICIPANT INFORMATION SHEET

TEAM NAME:
SINOBI

ORGANIZATION:
Tokyo Institute of Technology
The University of Elector-Communications
SGI Japan

CONTACT NAME:
Tetsushi Kamegawa

COUNTRY:
Japan

TOTAL NUMBER OF TEAM PERSONNEL:
7

EMAIL:
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ROBOT NAMES:
KOHGA

TELEPHONE:
+81-424-43-5403

WIRELESS FREQUENCIES (PER ROBOT):
2.4GHz (IEEE802.3u Wireless LAN)
1.2GHz (Wireless CCDcamera)

FAX NUMBER:
+81-424-43-5403

PRE-REGISTERED

REGISTERED

ARRIVED ON SITE

COMPETITION READY

PLEASE DISCUSS YOUR APPROACH TOWARD KEY DESIGN CHARACTERISTICS (WITH EMBEDDED PICTURES):

Locomotion: [caterpillar type]



The robot is constructed by caterpillar type machines. Machines are connected sireally with active or passive joints.

Sensors for navigation: [CCD camera]

The operator controls the robot based on the information from CCD camera.

Sensors for victim identification: [CCD camera with IR-light and microphone]

The CCD camera equipped IR-lights and a microphone. The IR-light is useful for searching in dark situation. The microphone catches the victim voice.

Sensors for localization: [CCD camera, potentiometer, attitude sensor]

The CCD camera catches visual images of the environment around the robot. Based on the information from the attitude sensor and potentiometers attached on the joint, the information of configuration and attitude of the robot are presented to the operator.

Control scheme: [teleoperation, (partial autonomy)]

An operator controls the leader of the robot using Wireless LAN. Followers track the leader automatically.

Communications: [each particular frequency]

The leader of the robot is controlled by the operator using Wireless LAN. The operator decides the moving direction of the leader based on images from the 1.2GHz CCD camera. Also the information of the robot condition (shape, attitude, the rest of power, and so on) is presented to the operator using Wireless LAN.

Map generation/printing: [operator/drawn]

The operator draws the map by himself/herself based on the CCD camera image and the robot attitude data.