

TC100 AGS
Preparatory discussion for possible SS6
(Robotics)

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Approach for robotics area in TC100

Try to extract the standardization item by reviewing existing robot, by introducing some examples that Panasonic works on healthcare area.

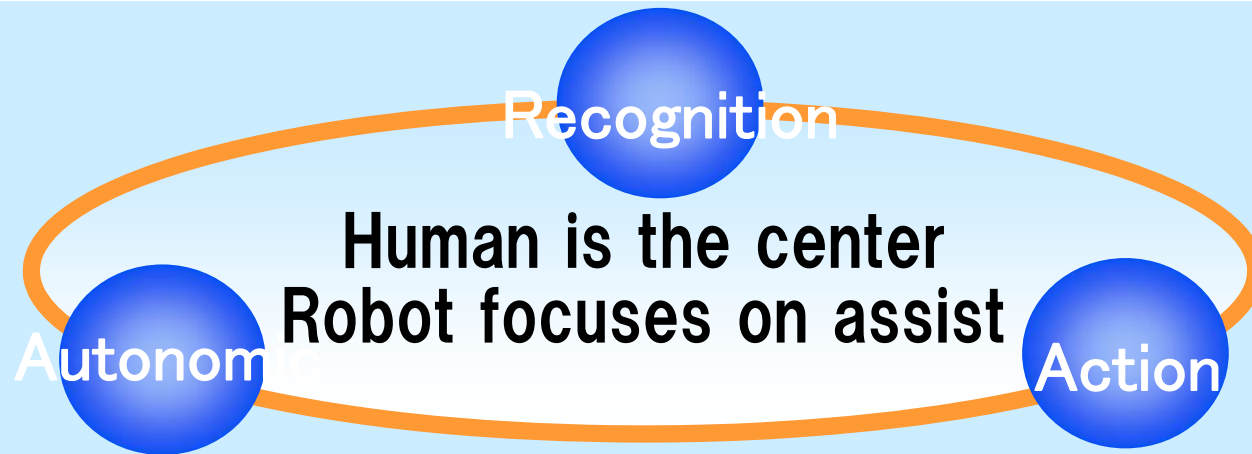
Goal of today' s discussion

Decide next step in TC100

Examples:

- Establish new Study Session on this area by assigning a leader.
- Will hold a brainstorming session at the timing of Plenary.
- Suspend to investigate on this area.
- others...

Concept of Panasonic Robot



Assist self-supported



Assist power



Assist transfer



Merit of assistive type robot

- Amplifier and leverage human ability
- Keep the dignity of human
- Promote by low cost
- Easy to realize safety by developing safety standard

Realize society which everybody including handicapped person can work actively and energetically

Expansion of Life Comfort Robot

Introduced to Madison
Delivery work in hospital

Public area



Support delivery



Porter Robot

Expansion of robotization
to whole hospital

In Home



Support home making



Kitchen Assist Robot

Support in Home

Nursing Home



Support nursing



Transfer Assist Robot

Porter Robot



Example of Panasonic's Porter Robot



<Specification>

Size	height: 1290 mm (Except Camera) width: 540 mm length: 680 mm
Weight	56 kg
Maximum Speed	6 km/h (1.6m/sec)
Battery	24V 6000 mAh NiH (2 units)
Sensor	human chase: Supersonic sensor Camera moving: photoelectric sensor Supersonic sensor others: crash sensor baggage sensor

Example of Kitchen Assist Robot

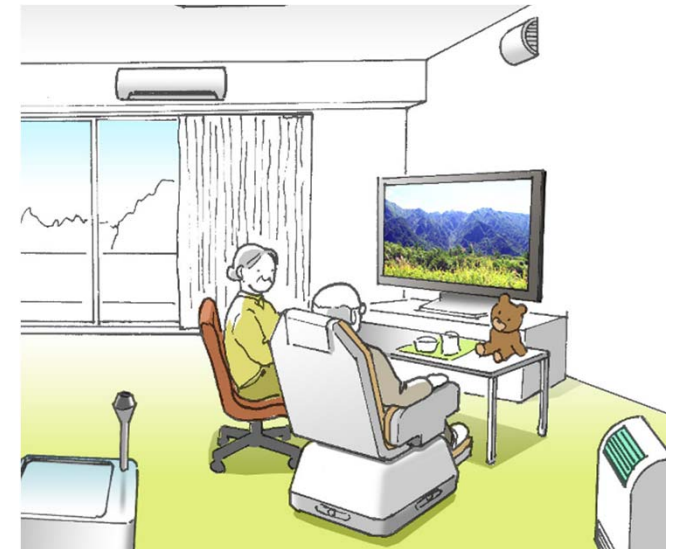
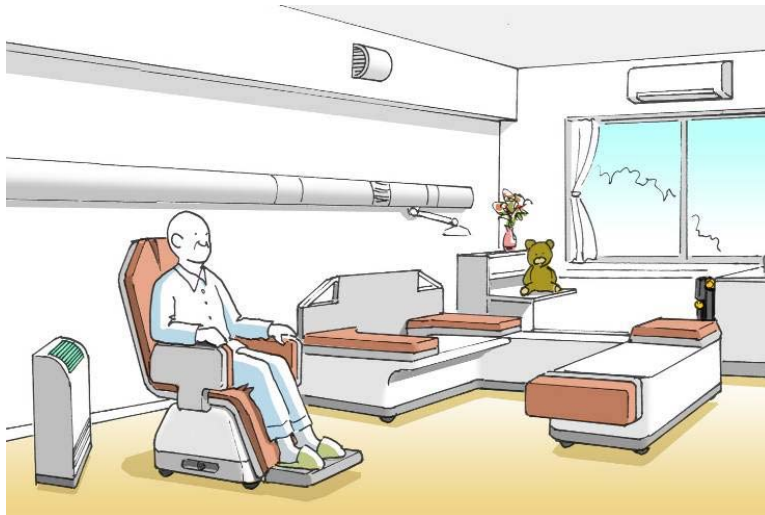


Concept

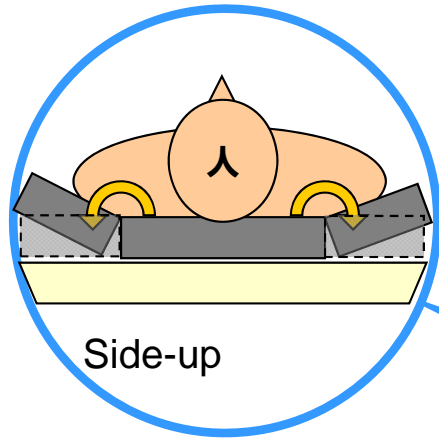
To assist elderly person or handicapped person for active and self-supported life at peace. The robot which assists diminished physical ability can contribute for realizing above.

Feature of Robotic

- Relief from bedridden situation by transforming from bed to wheel chair
- Nursing and assist robot for decreasing caregiver burden



Technical Feature : Robotic Bed



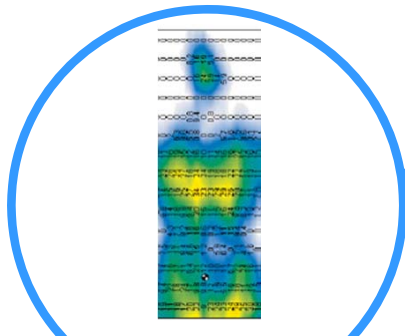
Voice Command Interface



Same bed material with Panasonic's nursing bed



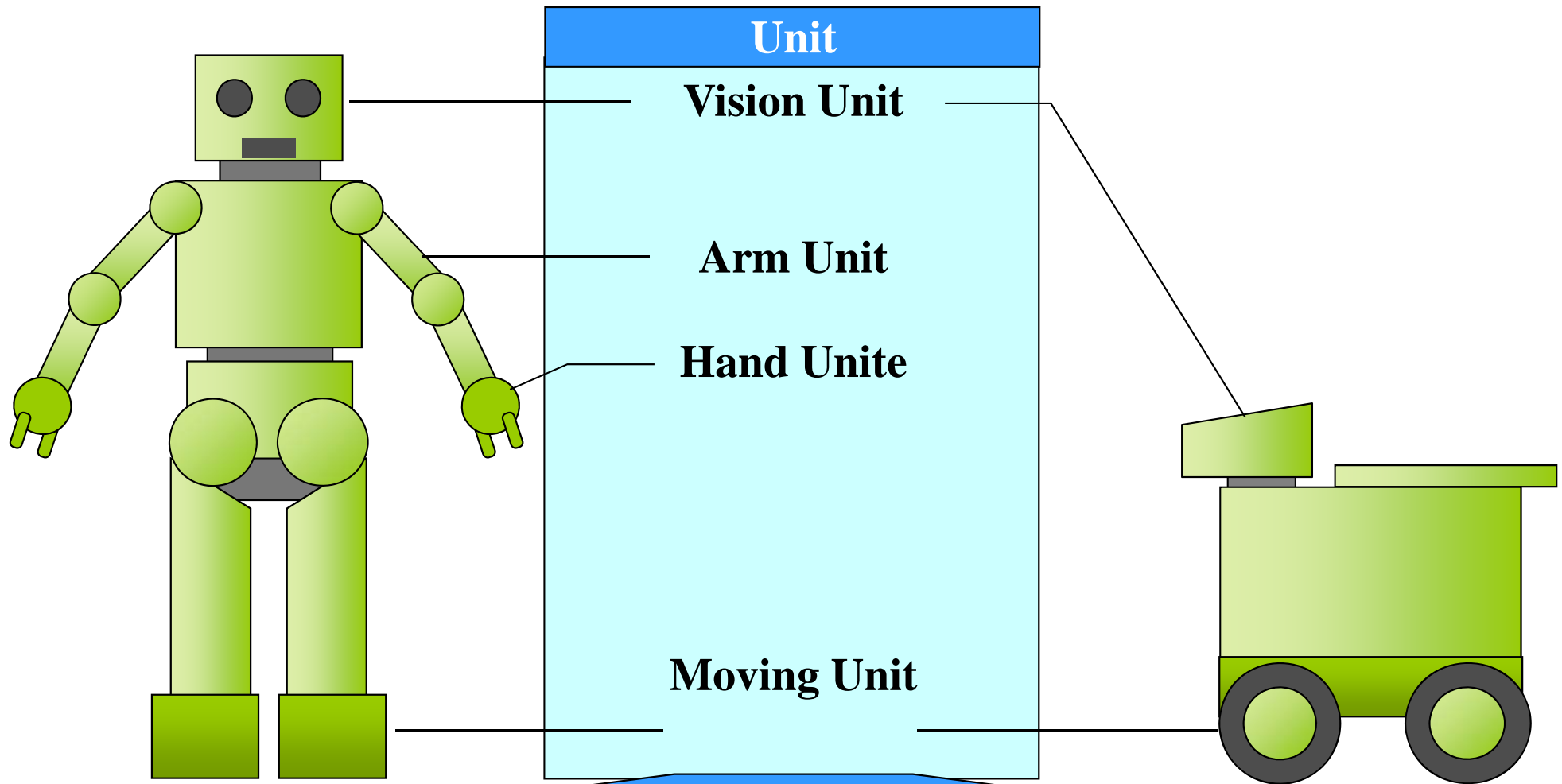
Transforming wheel chair



Control appropriate posture by human pressure sensor

Robot assists the control of bed and wheel chair safely
Check the surrounding by embedded sensor, and guide for avoiding the crash safely

Component of Robot



Components for composing each unit

Actuator

Controller

Sensor

Battery

Communication/Network

CPU/OS

Others

What item TC100 should standardize?

Examples are;

- Voice Recognition
- Image Recognition
- Communication
- Network
- Data Format
- Position information of robot
- Measurement to recognize the position

What others?;