

Partner Robot

## Daily Life Assistance

HSR is a compact mobile manipulator for the disabled and elderly. HSR can move around the house, keep watch over family members, and fetch objects. Our goal is to make HSR beneficial to all people in the near future.



# HSR

## Human Support Robot

Point

01

### Convenient Applications



#### Pick-up

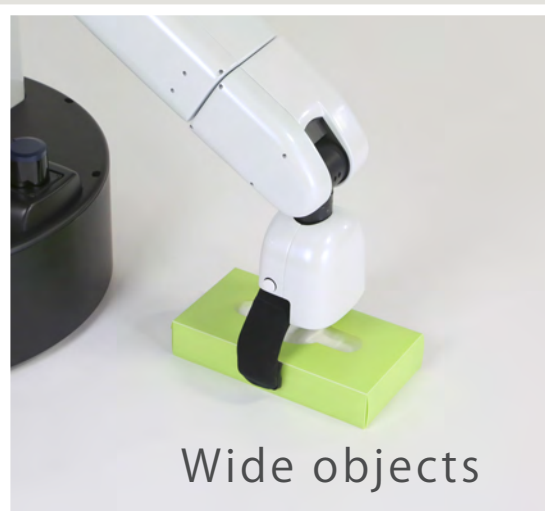
Pick up dropped objects and fetch boxes from shelf. Various tasks currently under development



Slim objects



Thin objects



Wide objects



Stable grasping

#### Fetch

recognized object



#### Remote Control Operation



### Intuitive Operation

Controlled via tablet

Point

02

Point

03

### Remote Communication and Support

Internet connectivity



Point

04



Obstacle avoidance

Worry-Free Operation

Safe design



Boundary detection



# TOYOTA



Partner Robot



Advantages

- Compact body and smooth omni-directional movement
- Integrated control of multi-DOF arm and omni-directional base
- Multiple sensors for environment recognition and object detection

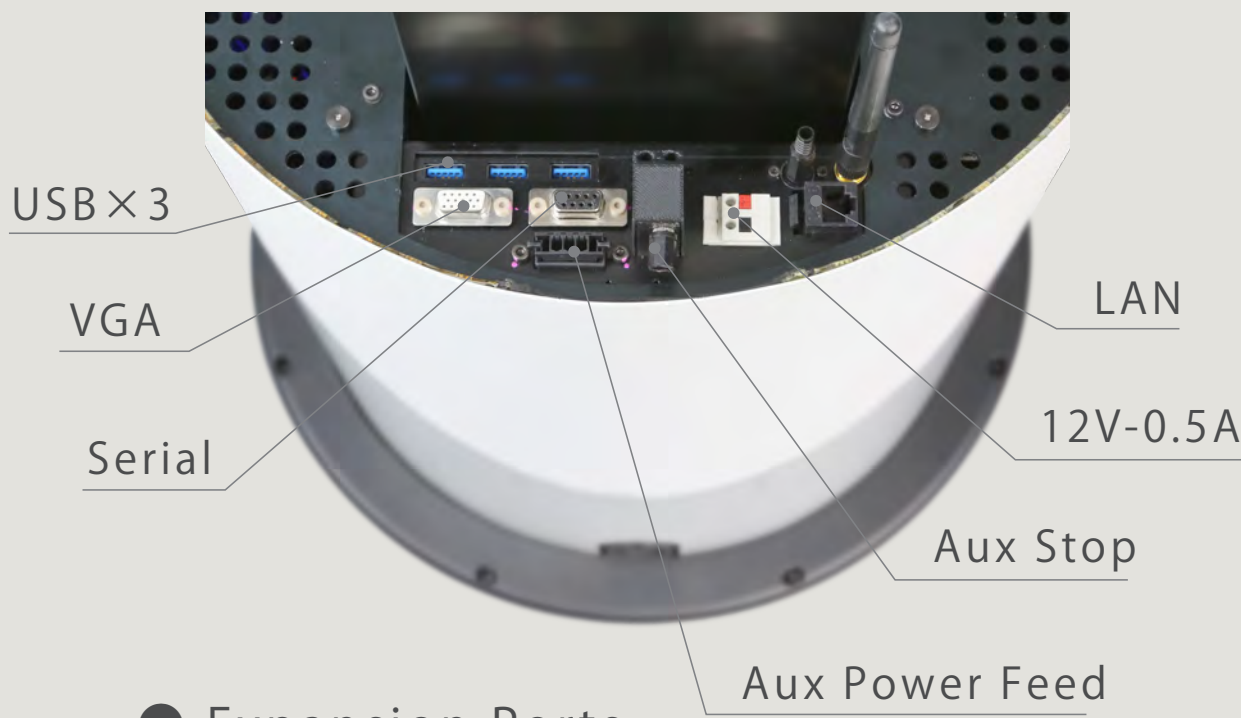
HSR

Human Support Robot

Development Environment



- ROS (Robot Operating System)



- Expansion Ports



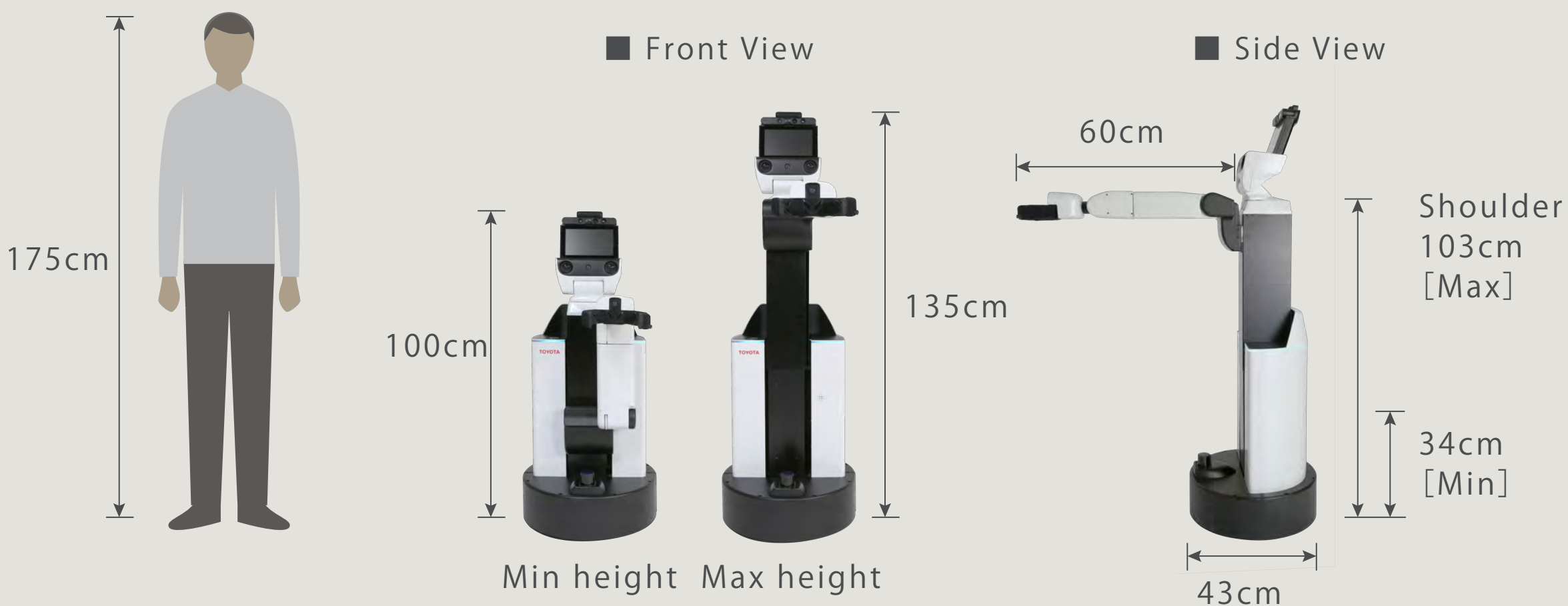
- Remote Stop Button



- Gravity Compensation

Specifications

- Weight: 37kg
- Max payload: 1.2kg Max object width: 130mm
- Max step size: 5mm Max incline: 5°
- Max speed: 0.8km/h



TOYOTA