

## Robot

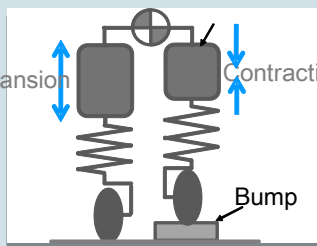
Mechanical Engineering Research Laboratory · Central Research Laboratory

18<sup>th</sup> June 2010 Hitachi, Ltd. News release in Japanese <http://www.hitachi.co.jp/New/cnews/month/2010/06/0618.html>

## Enhanced EMIEW 2 - Overcome bumps, discriminate human voice from noise -

18<sup>th</sup> June Nikkei, 19<sup>th</sup> June Mainichi

### Overcome cables and bumps

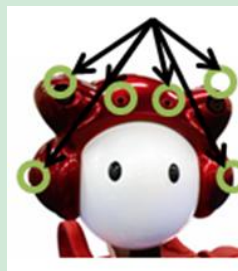


### Active suspension



### Discriminate human voice from noise

### 14-channel microphone array



### 3D sound source differentiation

Hitachi's human symbiotic robot was given enhanced mobility and voice recognition features to facilitate its application as a guide or surveillance robot in a real world environment such as offices and hospitals.

### Feature

- Size: W:300×D:250×H:800 (mm)
- Weight: 14kg
- Moving system: Two wheel and four wheel transformation system  
Active suspension system
- Maximum speed: 6km/h
- Maximum acceleration : 2m/s<sup>2</sup>
- Degree of freedom: 25 D.O. F  
(The number is robot's joint)
- Operation time: about 1.5hours
- Speech recognition: Remote speech recognition  
by the 14 channel-microphone array
- Self location recognition: Scan matching by laser scanner

### A word from the development team



We will conduct demonstration experiment to come in useful for everyone.  
We are looking forward to seeing you at Hitachi uVALUE convention on 22<sup>th</sup> - 23<sup>rd</sup> July in Tokyo International forum.