

# Press Information



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January 2011

### The Research and Development Project of Office Robots is officially adopted by METI (Ministry of Economy, Trade and Industry)

"Development of office robot", a project by FORUM8, has been officially adopted as the research project of METI (Ministry of Economy, Trade and Industry) according to "The Law of Advanced development for small-and-medium-sized enterprise" on December 10, 2010. We are proceeding with the developmental planning of the office robots using our virtual reality (VR) software "UC-win/Road" and its modelling technology utilising 3D point-cloud data.

This is the outline of the Development of UC-win/Road Office Robot project.

#### 1. Development of the basic module

FORUM8 is developing the following 4 modules that control the office service robot and the main controller that manages these 4 modules.

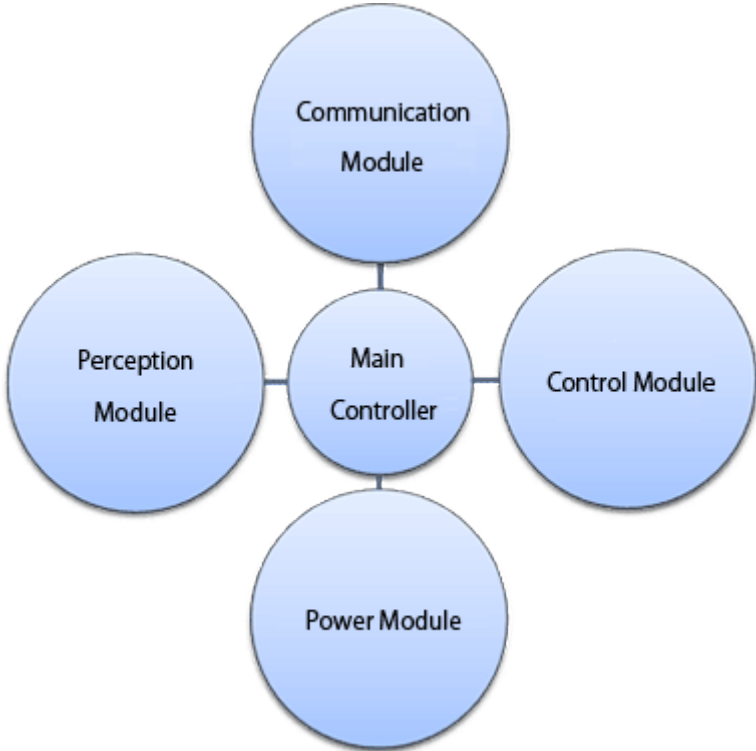


Figure 1: Concept

**2. Development concept for the main body of office robot**

1. Wireless Network (Tele-operation, Telepresence)
2. Microphone (Telepresence)
3. LCD screen (Telepresence)
4. Stereo speaker (Telepresence)
5. Wireless Internet Camera (Tele-operation, Telepresence)
6. Temperature, gas sensor (Hazard sensor for home robot)
7. Cavity for holding documents and small items
8. Infrared sensor (Obstacle avoidance – infra-red pass filter can only be seen from outside.)
9. Laser range finder (Obstacle avoidance)
10. Position measurement camera

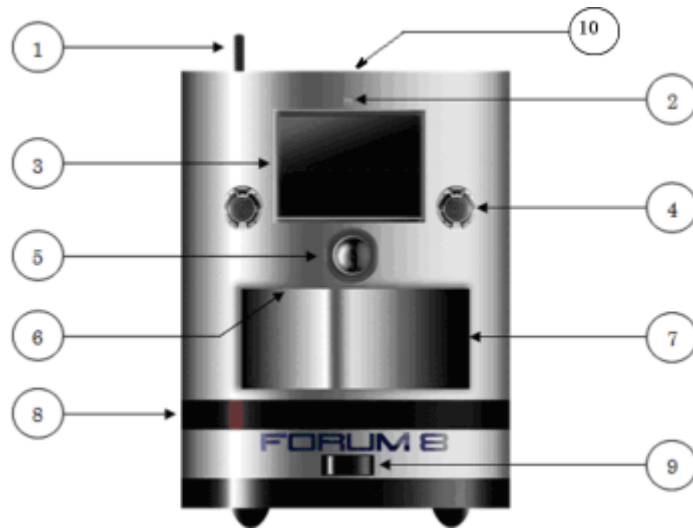


Figure 2: Concept

**3. Development of robot operation system**

- Task assignment function
- Path judgement
- Recognition
- Advanced control function
- Visual feedback process
- Manual control function(Figure 3)
- Random wandering function
- Security function

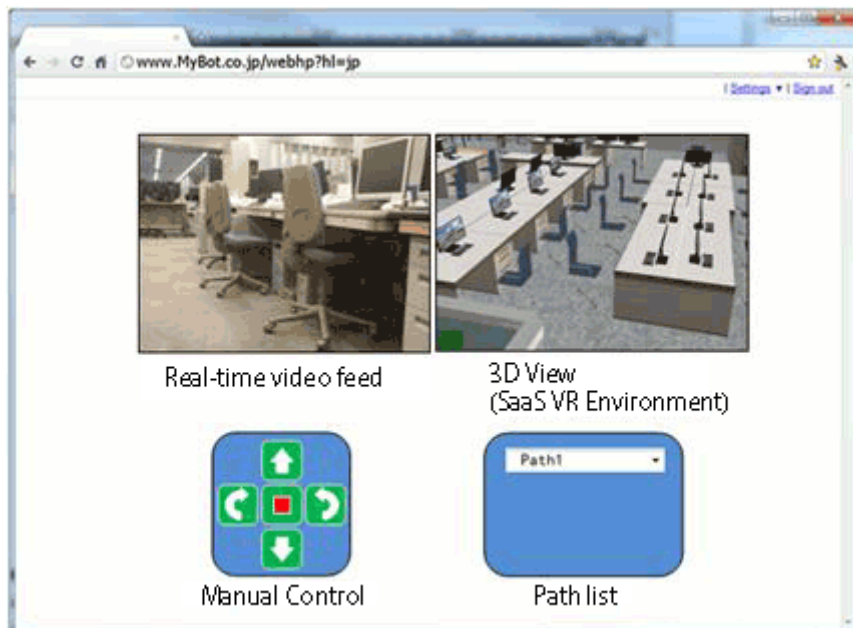


Figure 3:Controlling interface (Sketch)

**4. Implementation of the actual test and the consideration of maintenance method**

**5. Marketing and service of the system when commercialised**

Associated products:

[UC-win/Road for SaaS](#)

[Point cloud modeling](#)

[UC-win/Road for RoboCar\(R\)](#)



▲ RoboCar(R) operational in an office



▲ Physical environment for RoboCar

▲ RoboCar® in UC-win/Road