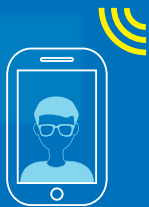




Human Vision Components HVC-C2W

2015.12 Release

* "HVC" stands for Human Vision Components.



Easy to install

Using HVC-C2W and application software together enables the sending of human recognition information via wireless LAN to a PC and smartphone.



Multifunction

Featuring 13 sensing functions.

HVC-C2W is a winner of the following two awards.



Lifestyle Innovation Category

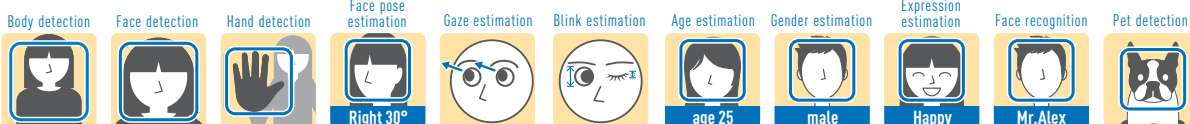
Semi Grand Prix

The CEATEC INNOVATION AWARDS, "As Selected by U.S. Journalists"

Health and Household Award



The world's leading image sensing technology built on data of more than one million faces. This realizes high level detection and recognition performance, and sales have reached more than 500 million licenses from mass production.



Sound detection



Motion detection



* The term and logo of "OKAO" is a registered trademark or trademark of OMRON Corporation in Japan and/or other countries.

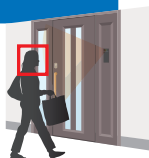
Applications

Home

Next-generation home security monitoring

- Face recognition enables hands-free entry/exit.
- Checking the condition of family members with smile detection.
- Activation of suitable appliances for family members based on body detection and face recognition.

(Function examples) Face detection, body detection, face recognition, expression estimation, etc.

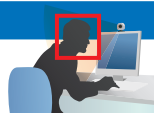


Office

Simple personal authentication and security

- Login to security system based on face recognition.
- Use of body detection for energy saving through controlling lights and air conditioners according to people's presence/absence.

(Function examples) Face detection, body detection, face recognition, etc.

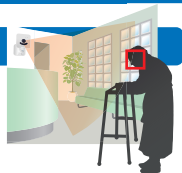


Care facility and hospital

Monitoring

- Detection of wandering behavior of monitored persons
- Detection of outsiders (suspicious persons, etc.)

(Function examples) Face detection, body detection, face recognition, etc.

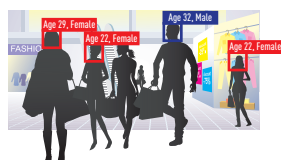


Retail store

Customer analysis and digital signage

- Customers' attributes (age, gender, expression) and sight line data (degree of interest in products) are analyzed for effective product marketing.
- Improvement of customer experience through identifying individuals by face recognition.

(Function examples) Face detection, age estimation, gender estimation, expression estimation, etc.



Factory

Simple personal authentication and human sensor

- Operator authentication for devices that should be operated by specific persons.
- Activation (of automatic door, machine, etc.) only when a person is attempting to operate or is facing the controlled object.

(Function examples) Face detection, body detection, face orientation estimation, face recognition, etc.



Specifications of HVC-C2W

■ Features and output

Body, face, and hand detection	• Number of detected objects (35 max.) • Detected object center coordinates • Detection size • Reliability
Face pose estimation	• Right and left angles • Upward and downward angles • Tilt angles (rotation angles) • Reliability
Gaze estimation	• Right and left angles • Upward and downward angles
Blink estimation	• Degree of eye closing (right eye and left eye)
Age estimation	• Age • Reliability
Gender estimation	• Gender • Reliability
Expression estimation	• Result of expression judgment and score (The expression score is output for each of the 5 expressions: neutral, happiness, surprise, anger, and sadness.) • Degree of positiveness/negativeness (The higher the degree of happiness is, the closer the score gets to +100. The higher the degree of surprise, anger, or sadness is, the closer the score gets to -100.)
Face recognition	• Number of registered faces: 500 max.
Pet detection	• Dog and cat • Frontal face detection only
Motion detection	• Feature for detecting moving objects
Sound detection	• Feature for detecting sounds and voices
Image output	<Saved image> • Size: HD (1280 × 720) • Format: jpg <Live video> • Size: 320 × 180, 640 × 360, 1280 × 720 * You cannot save videos in an SD card.

■ Detection distance (reference data*)

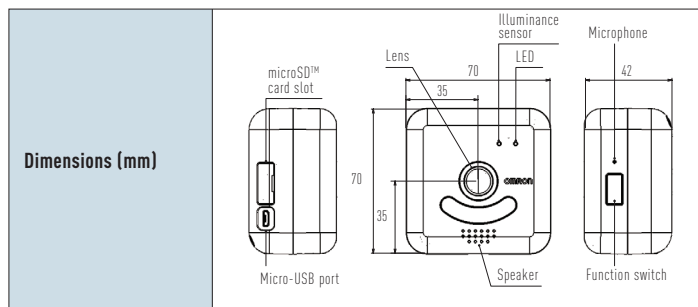
Function	Maximum distance
Body detection	8.5 m
Face and hand detection	3.4 m
Estimation of face pose, gaze, blink, age, gender, facial expression, and face recognition	1.5 m

* Accuracy of detection/estimation gradually declines when the specified distances are exceeded.

■ Characteristics and rating

Size	70 mm × 70 mm × 42 mm (base part excluded)
Weight	Main body: Approx. 100g
Power supply voltage	5 V
Power consumption	1 A
Operating temperature	0 to 35°C
Horizontal/vertical detection range (angle of view)	Approx. 100/57°
Communication specification	The unit receives the control commands from the host, and sends the results of detection and other data to the host.
Communication method	IEEE 802.11b/g/n
Low light operation	Infrared LED flash (switchable)
Audio	Microphone and speaker

■ Dimensions



■ Purchase information

HVC-C2W	
Price	Please contact OMRON.
Package	• HVC-C2W × 1 • AC adapter and plug × 1 • Micro-USB cable × 1 * The microSD™ card is not included in the package. Please purchase it separately.

* Using a microSD™ card up to 32 GB or a Class 4, 6, or 10 microSDHC™ card is recommended.

Inquiry about HVC-C2W:

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Application Oriented Business Division

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