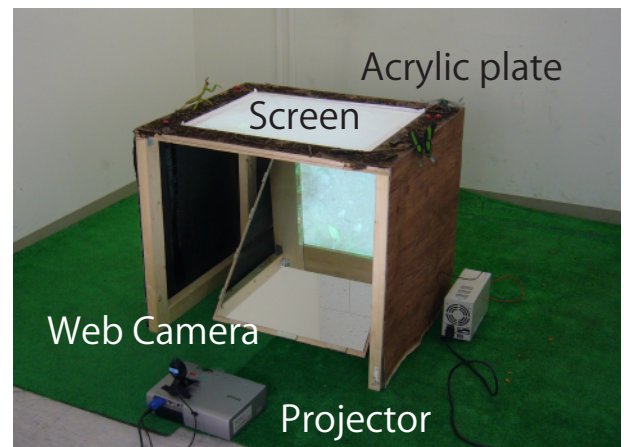


System architecture

A player puts on the glove device (1) and touches the acrylic plate display (2). An incandescent light is radiated from top of the display (3). The shade of the glove was captured by a web camera (4). The obtained image is sent to PC (5), which determines whether the hand touched the screen, and calculates the contact position. It also controls action of “visual” ants. A projector (6) is connected to the PC, and the visual image of the moving ants is projected on the screen (7). If an ant reaches the contact position, PC informs to a microprocessor, which controls tactile part. Conversely, if “tactile” ants fall down from the glove, the microprocessor informs to PC (8). An acceleration sensor is used to measure tilt angle and detect shaking behavior of the glove (9). The microprocessor controls tactile motion of the ants (10) by driving matrix of motors. Brushes attached to the motors generate tactile sensation as if ants are crawling on his or her arm (11). In this way, the player can play with “visual” and “tactile” ants.



▲ Position sensing and output part



Inside of glove device ▼

Microprocessor is in insect cage