

The first step for developing a realistic rescue robot

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In the first version of the robot, products on the market are used for each element of it. A radio-controlled miniature tank is used as the main body. The miniature tank which we chose is suitable for moving in the irregular environment because suspension is attached to a caterpillar, so the robot is robust against the irregularity of the environment. The part of a battery of the tank can be used as the movable stand that controls the direction of the CCD camera. The CCD camera mounted on the robot is an all-in-one color module that features high speed pan (movable range ± 3.0 degrees) and tilt (movable range ± 15 degrees) motion. Three times zoom and auto focus mechanisms are also included. We can control many parameters of the camera by H8 CPU through a RS-232C serial connection. As the body of the camera can rotate about z-axis and change the direction of the viewpoint of the camera, a wide view can be achieved.



Fig. 1. Picture of the robot : CCD camera on the main body