

ABSTRACT

An automatic removal system for a reservoir cap is provided. The system includes a removal robot including a polyarticular robot arm, a finger that is installed at an end of the robot arm to move forwards and backwards through a cylinder and grips or releases the reservoir cap, a rotary motor that rotates the finger, and a gripping mechanism equipped with a detection sensor that monitors a front; and a controller recognizing the reservoir cap installed in a reservoir inlet or a reservoir through a detection sensor, controlling the robot arm to move the gripping mechanism to a recognition point, and controlling the cylinder, the finger, and the rotary motor to attach or detach the reservoir cap to or from the reservoir inlet.

FIG. 1