

ABSTRACT

An automated system for mounting a front-end module (FEM) including a first headlamp assembly and a second headlamp assembly assembled to both sides of a carrier body, and a FEM installation portion of a vehicle body, the automated system includes a FEM gripper mounted on an arm of a first handling robot, a vision sensor mounted on an arm of a second handling robot through a mounting bracket and configured to vision-photograph a first reference portion formed on the vehicle body and a first vehicle body coupling hole formed on the first headlamp assembly and vision-photograph a formed on the vehicle body second a second vehicle body coupling hole formed on reference portion and the second headlamp assembly, while the front-end module is loaded on the FEM installation portion by the FEM gripper, and a controller configured to analyze vision data obtained from the vision sensor and apply a position control signal to the first handling robot.

FIG. 1