

Abstract

A multi-legged robot according to an embodiment of the present invention includes: a body; and a plurality of legs coupled to the body, wherein each leg comprises: a drive module comprising first to third drive motors modularized, the first drive motor for generating a drive force for rotating a first drive shaft, the second drive motor located on one side of the rear end of the first drive motor and having a second drive shaft located horizontally with respect to the first drive shaft, and the third drive motor coupled to the front end of the second drive motor and having a third drive shaft located on the same line as the second drive shaft; a first reducer having one end portion coupled to the first drive shaft of the first drive motor and the other end portion coupled to the body in such a way as to amplify torque output from the first drive motor to enable the first drive motor to roll with respect to the body; a second reducer coupled to the second drive shaft of the second drive motor in such a way as to amplify torque output from the second drive motor to allow a knee pitch joint connected thereto to be rotatable; and a third reducer located between the third drive motor and the second reducer in such a way as to be coupled to the third drive shaft of the third drive motor to amplify torque

output from the third drive motor and thus allow a hip pitch joint connected thereto to be rotatable.

FIG. 2