ABSTRACT

A method for acquiring hinge torque performance is provided by present disclosure. The method includes constructing a plane model of a concave and convex cam set based on structural data of a hinge, wherein the plane model comprises a first model that represents a first profile of a first concave and convex cam of the concave and convex cam set, a second model that represents a second profile of a second concave and convex cam of the concave and convex cam set, and mechanical parameters of the hinge; determining a plurality of meshing positions of the first model and the second model to construct a meshing point set, wherein the meshing positions are determined based on the first concave and convex cam and the second concave and convex cam during a rotation process of the hinge; determining a correspondence relationship between a torque and a hinge rotation angle at a meshing point of the meshing point set based on the mechanical parameters of the hinge to characterize torque performance of the hinge. FIG. 1.