APPARATUS AND METHOD FOR TOOL MONITORING

Abstract of the Disclosure

An apparatus comprises a tool having a first portion and a second portion that are separated by at least a first area of articulation. A first inertial measurement unit is affixed with respect to that first portion and a second inertial measurement unit is affixed with respect to that second portion. A control circuit operably couples to those inertial measurement units and receives corresponding information regarding those portions of the tool. The control circuit can then process that received information to generate positional proprioception information as regards those monitored tool portions. By one approach, the control circuit generates that positional proprioception information by first determining an absolute orientation of each of the tool portions independent of one another and then calculating a differential pose as a function of the determined absolute orientation of those tool portions.

[Figure 1]