

SUMMARY

The invention relates to an electromechanical positioning unit formed as an inertial drive to position objects with atomic scale positioning precision and with displacement ranges up to centimeters. The positioning unit contains at least one preferably tube-shaped piezo electric actuator for transmitting electrically controllable inertial driving motions to a slider. The object of the invention is a slider consisting of at least one part of relatively high mass (mass unit) and of at least one flexible deformable part (flexible unit) allowing the frictional forces to be adjustable by bending the flexible parts and the mass part providing high loading capacity of the positioning unit. By combining these two parts it is possible to position heavy objects and to exert forces necessary to drive tools.

