

ABSTRACT**DEVICE FOR POSITIONING OBJECT IN SPACE**

This invention relates to a measurement equipment and can be used to create means of measuring coordinates and angular values of an object freely moving in space with six degrees of freedom. The invention can be applied in human-machine interfaces as a coordinate input device, particularly, in training systems, in robotics, in augmented, virtual reality and mixed reality systems. The technical result is to increase the measurement accuracy by eliminating the measurement error of the gravity vector direction caused by the movement of the platform with sensors. There is the claimed device, wherein it comprises an inductance coil placed stationary in a horizontal plane, a power supply of the inductance coil, a computing unit, and a platform with sensors placed on a moving object, including a three-component magnetometer, three-component accelerometer and three-component gyroscope, with the power supply of the inductance coil including a coil current regulator controlled by a clock generator, and the computing unit is arranged with phase-locked loop, ensuring clocking of the magnetometer and synchronization of the magnetometer measurement phase with the phase of magnetic field pulses generated by the inductance coil.