

ABSTRACT

A magnetic miniature robot, having a deformable component having a longitudinal body with two ends, the longitudinal body being bendable about a transverse plane defined at the center of the longitudinal body, the deformable component being configured with a non-uniform magnetization profile defining a net magnetic moment axis that is perpendicular to the transverse plane, wherein the magnetization profile is non-uniform, and wherein the magnetization profile is characterized by magnetic field vectors at the two ends being in the same direction as one another, and parallel to the net magnetic moment axis.

FIG. 10B