A Document Detailing the Derivation of Magnetic Field from a Solenoid

Author: Think the Duck

This is a document meant for the sole purpose of deriving the formula for the total magnetic field from the circular center of and on the axis perpendicular to a solenoid at a distance relative to one edge of the solenoid. We will be doing this in cartesian coordinates and by only using one axis. The derivation of the magnetic field from a ring of current can be found on a different document.

This document has fulfilled its sole purpose.