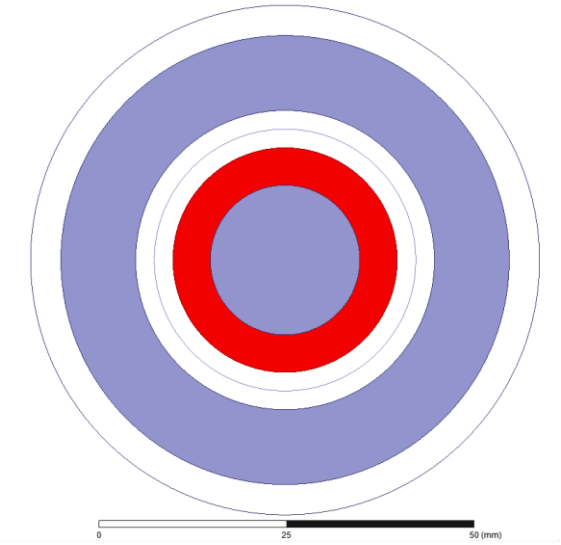
Mehmet Kaan Mutlu

Motor Design Assigment-4

- Induced Voltage-

Diametrical oriented magnet's design notes and corresponding results:

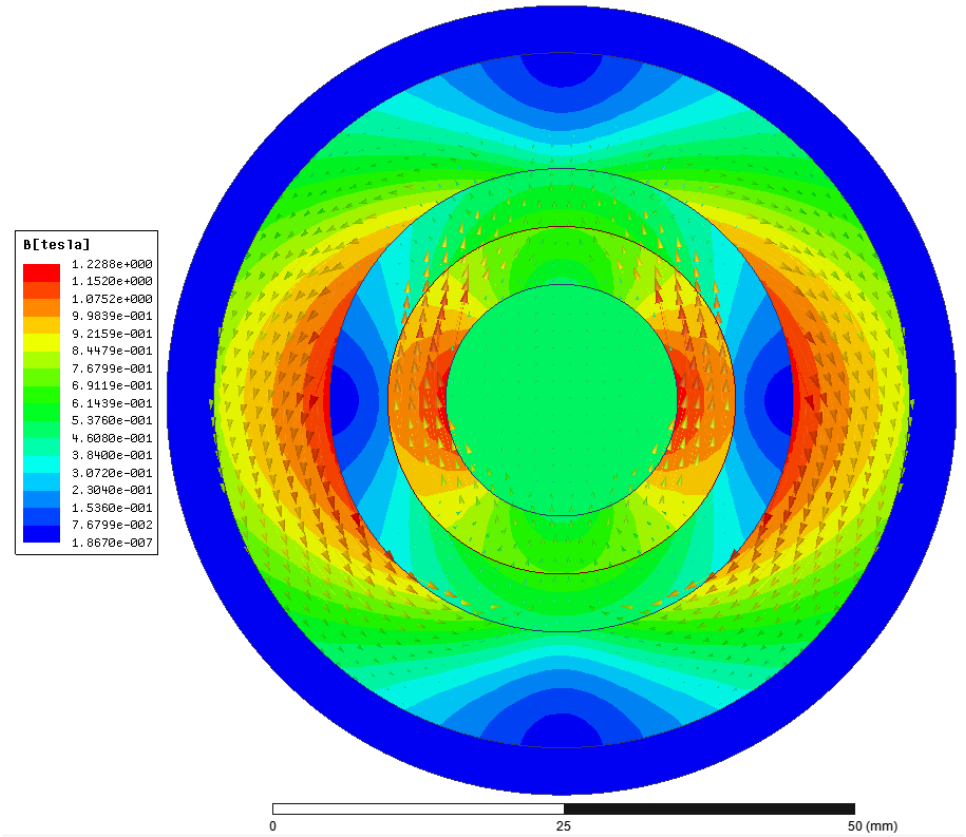


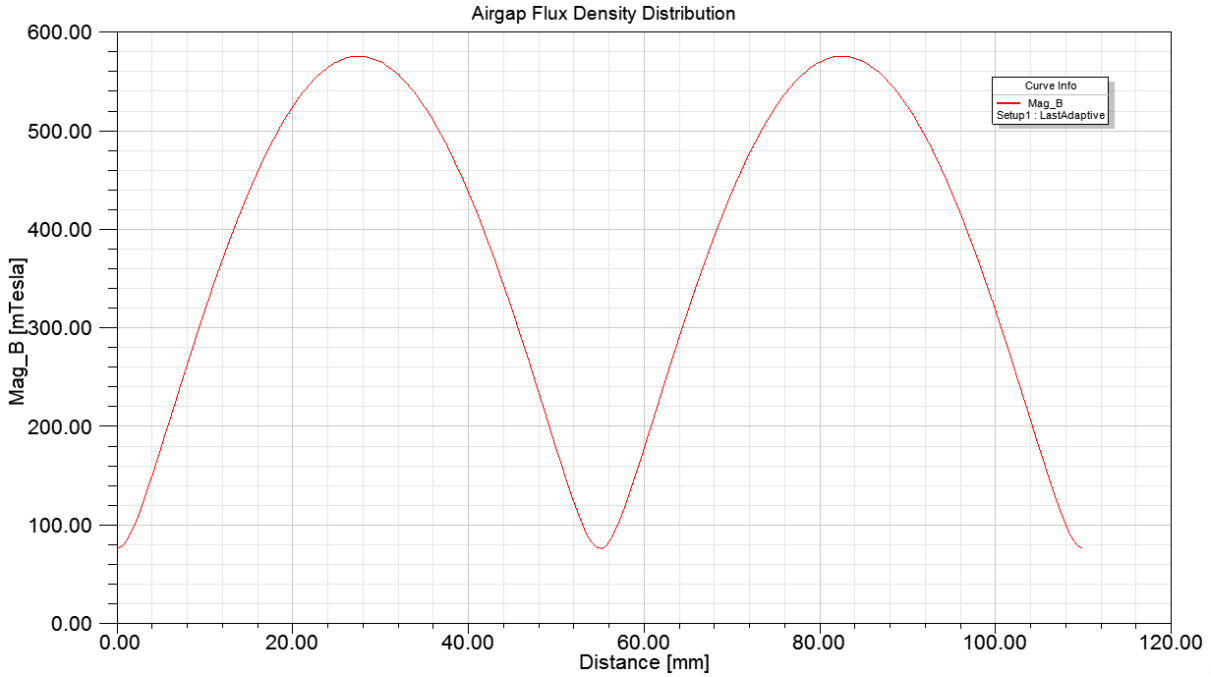
Outer circle is the boundary.

Rotor and stator's cores are defiened as realistic materials and colored as light blue.

Magnet is in red color and defined as a single volume. Its orientation is selected as y axis.

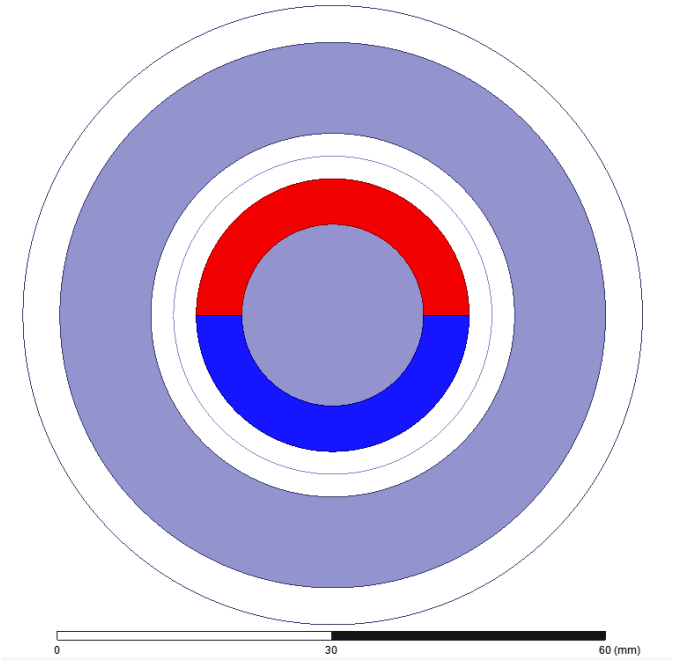
The circular line between magnet and the stator is created to be able to observe the air gap flux density distribution.



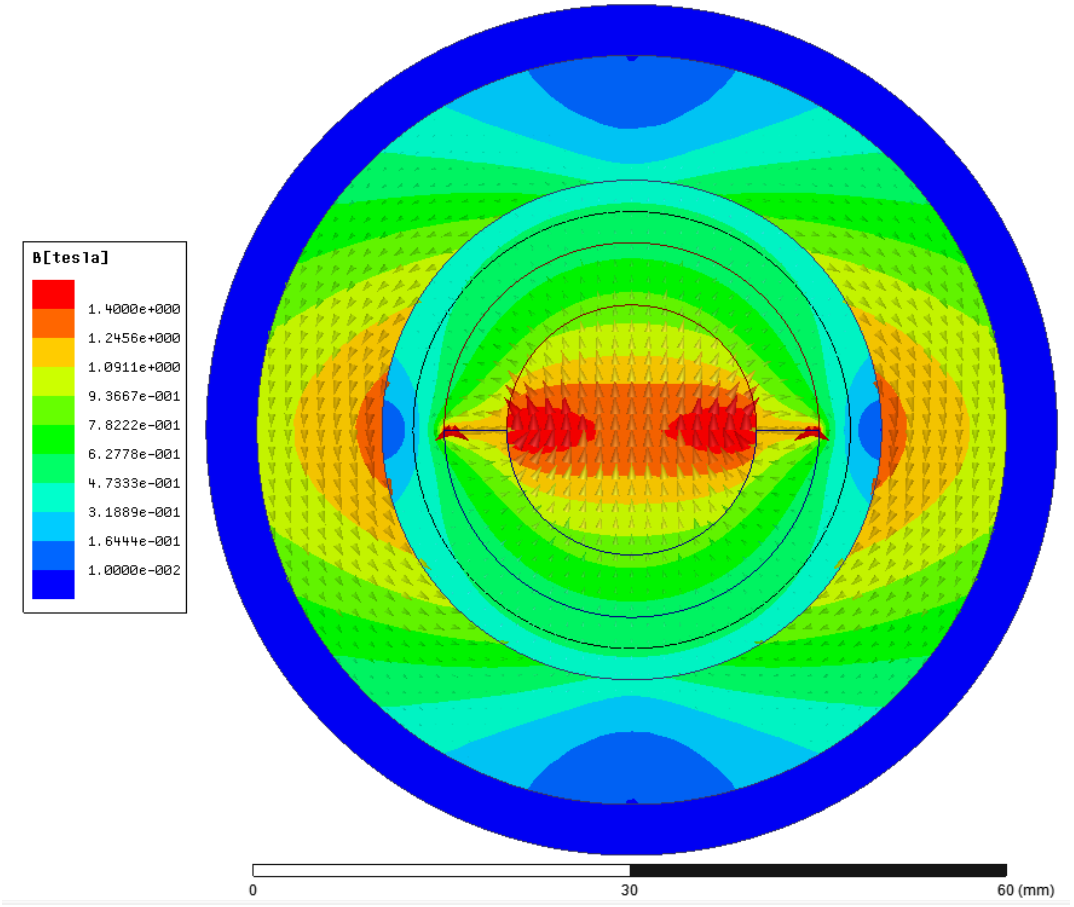


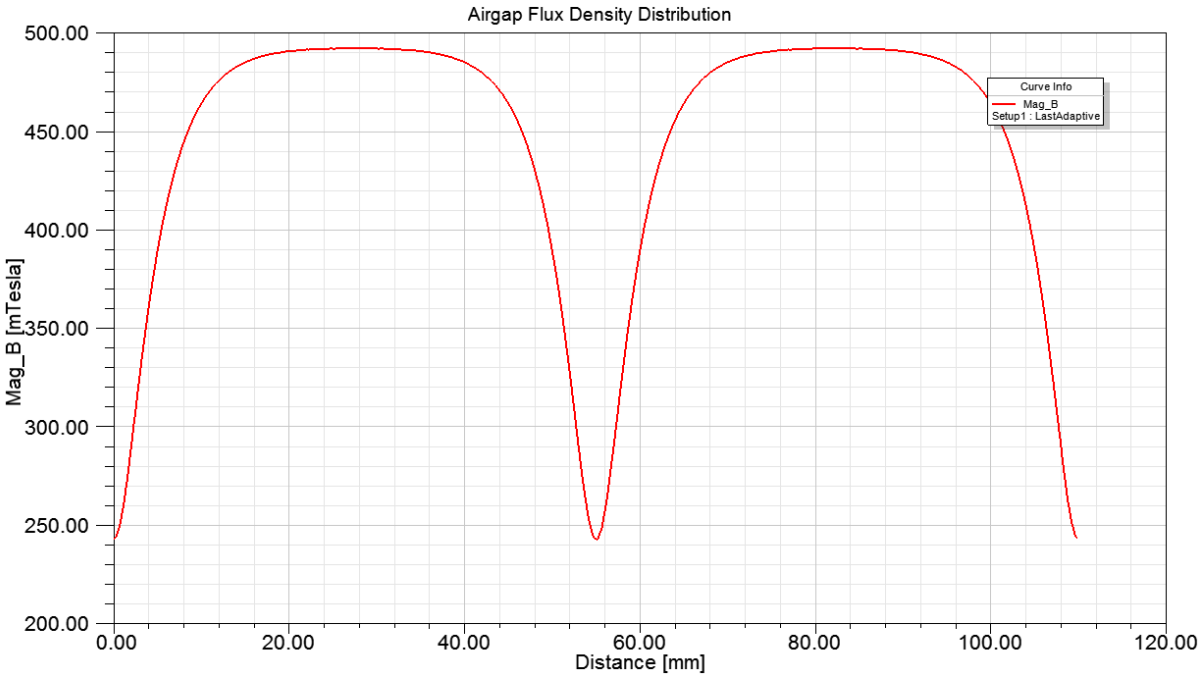
X-axis of the graph is length of the airgap's line. Once it is exported to the Matlab, it will be converted to theta.

Radially oriented magnet's design notes and corresponding results:



This time two different magnets are defined. For N pole R axis and for S pole –R axis is selected as magnetization orientation.





Again X-axis of the graph is length of the airgap's line. Once it is exported to the Matlab, it will be converted to theta.