



# Customized STL coil system

As the variety of coils is so large and every customer usually has its own requirements, we manufacture customized coil systems to meet specific requirements. This list of questions will help us to develop the right system for you. Answering these questions will allow us to give you a serious quotation. Question 2 is very important as it usually defines the required coil size. If there are size restrictions, other coil types than Helmholtz coils might be required.

1. *Do you need a 1D, 2D or 3D Coil system?*
2. *What is the required homogeneity (in %) over which activated volume (size, sphere diameter or edge lengths if cuboid)?*
3. *Is there any requirement (restriction) for the coil size?*
4. *What is the maximum required field? (Usually twice the earth magnetic field)*
5. *Are there special frequency requirements (DC operation, or AC operation with maximum frequency  $f_{max}$ )?*
6. *What are the stability requirements?*
7. *What are the accuracy requirements?*
8. *Does the field in the coil need to be constant over time even when the environmental field changes? (Virtually closed loop operation necessary?)*
9. *Is the system used for calibration purposes?*
10. *Is there a requirement for the accessibility of the activated volume?*
11. *Are there also magnetic gradients in the scope of interest?*
12. *Is magnetic silence an issue (even in close distance to the coil the field is very low)*