# MR Scan Protocol - Cranial

How to scan cranial MR data for BrainLAB VectorVision Navigation*:

## FoV (Field of View) Scan Range
- Include region of interest
- FoV must remain the same during one scan
- Do not include the table or headrest in the field of view.
- Include all fiducial markers / landmarks (defined by responsible surgeon)
- Surface Matching (z-touch, softouch): include the face containing forehead, eyes and the complete nose (tip must not be cut off!)
- No restraints across face or ears (across chin is OK)

## Scan Properties
- Axial, sagittal, coronal
- T1, T2, angiographic possible
- Contrast chemicals allowed
- Scan patient with eyes closed
- Sequential scans 1-3mm
- Slice thickness can be changed during the scan.
- Pixel size, Matrix size, and Table height must remain the same during the scan
- Surface Matching: The skin surface must be displayed as even, well contrasted and with low distortion.

## Gantry tilt/Angulation
- Positive and negative values are allowed, but have to remain the same during scanning.
- Angulation less than +/- 10 degrees can be used (larger angulation can be for iPlan! 1.0 and higher customers)

## Patient orientation
- Strict supine position (Prone position allowed only for iPlan! 1.0 and higher customers)

## Image compression
- If transferring via CD-Rom, save images in uncompressed format.

## Matrix size
- Any, but recommend squared, e.g.:
  - 256 x 256
  - 512 x 512

## Special
- 3D MR, Angio MR allowed

* Based on PatXfer 4.22 or higher and VV Cranial Navigation Software
* If you need additional information please contact your local BrainLAB Support Engineer