

MRI Scanner Features Handout

MRI Scanner

The Siemens Prisma 3T MRI scanner is designed specifically to meet the challenges of research scanning. It offers a gradient strength of 80 mT/m and slew rate of 200 T/m/s making it the fastest scanner available and ideal for EPI imaging (BOLD and Diffusion Weighted Imaging). We are equipped with a 32 channel head coil, as well as 20 and 64 channel head/neck coils, with pre-amplifiers to allow parallel imaging and image acceleration. Distortion and image blurring are reduced in EPI sequences with less sacrifice to SNR with this system. Additional coils our scanner is equipped with include a 32 Direct Connect spine coil, two 8 channel body coils, a 4 channel large flex coil, and a 4 channel small flex coil. Our complement of coils can facilitate imaging in neurology, abdominal, pelvic, and certain musculoskeletal regions.

Top of the line applications in our scanner also include SWI, fMRI/DTI, ASL, SMS, Inline Composing, Spectroscopy, Flow Quantification and FREEZEit.

Video equipment:

For visual stimulus presentation to participants in the MRI scanner during scans, our scan room is equipped with a ProPixx projector from VPixx. This advanced, research-grade projector is capable of presenting stimulus with accurate timing, high bit-depth, and fast refresh rates.

Participant Response System:

To acquire participant response during fMRI studies, we are equipped with a Current Design Package 904 system fully compatible with MRI and a two-button keypad (HHSC-1x2-BY) to record key press information on the computer.