

Simulator Room

- Scanner Simulator, Simulator Computer, Projector, screen, Stop Watch
- Non-fiber optic response Pads, CD Player with CD of scanner sound

Fiber-Optic Response Pad System – Current Designs Inc.

- 4 button response each hand for a total of 8, (1-4 Rt, 5 Scanner Trigger, 6-9 Lt)

ERP

- Brain Vision LLC MR Safe ERP System & Caps

Avotec – virtual environment, emotional stimuli – Auditory and Visual Stimuli

MR Confon – Auditory Stimuli

LITEMIC 3130 - Noise cancelling Optical Microphone for MRI Communications

SR Research EyeLink 1000 – recordable MR Safe eye tracking system

Rear Projector / Screen, Tablet & Pen

Motion Detection software

Corrective Eye Glasses - plus or minus 6

Stimulus Computer

- Stimulus Desktop computer – Dell Precision T3400
- Laptop (your own) – Optional

In Bore Camera

- Live monitoring & recording (can record on computer)

Computer Programs / Operating Systems

- Presentation
- E Prime – (Psychological Software Tools, Inc. Pittsburgh, PA)
- MatLab
- Windows
- Linux

MR Scanner & Workstation

- Siemens Tim Trio – 3T software level Syngo MR 2006 VB17 (60 cm Bore, 440 lbs weight limit)
- Leonardo – Data transfer workstation

Common Applications (Pulse Sequences)

- EPI Functional, MPRAGE – 3D (SPGR T1W) (6.26), FLAIR (3.38), Diffusion (1:47), DTI (9:47), Dual TSE (6:24), ASL, MRS. etc.

Synchronization with Scanner

- Receive triggers via parallel port (interrupt) or response box (Right Hand 1-4 Response, 5 Scanner trigger every TR, Left Hand 6-9 Response, 5 signals the beginning of each acquisition)

Immobilization

- Memory Foam sponges

Coils

- Matrix - 12 Channel Head Coil
- Matrix - 32 Channel Head Coil
- Variety of other non-Head Coils

Physiological monitoring & Recording (As provided on the Siemens Scanner i.e. ECG, Peripheral Gaiting, and Respiratory Triggering)

Data Processing

- AFNI – Analysis of Functional NeuroImages software (Cox, 1996 Cox & Jesmanowicz 1999)

All other equipment i.e. Fiducial markers, CD's etc are to be supplied by Researcher.