

Rotman MRI Equipment List - Quick

Below is a quick summary of all of the equipment currently available for researchers at the Rotman MRI.

If you have any questions or requests please contact our MRI Specialist, Jacob Matthews, at jmatthews@research.baycrest.org.

MRI Scanner and Related Equipment

MRI Scanner

Siemens 3T PrismaFit MRI Scanner, 80/200 gradients, VE11E software, Head/Neck 20 Coil, Head 32 Coil, Head/Neck 64 Coil

Stimulus Presentation Computer

Dell Precision 5820, connected to most other stimulus equipment, common stimulus software installed (E-Prime, Presentation, PsychoPy, PsychToolBox), display output extended from researcher monitor onto subject projector (with researcher clone)

Cables for Researcher Laptop/Device

KVM plus equipment cable bundle including: two video cables with common port adapters, audio in/out cables, KVM USB (scanner triggers, response box), BNC/Parallel (analog trigger signals)

Visual Stimulus Presentation System

VPixx PROPixx MRI (LED, 1080p, 120Hz), VPixx DATAPixx3 Controller (stimulus synchronization), behind bore projection screen (image size: 55.0 cm x 31.0 cm, eye-to-screen distance: 130cm, vertical FOV: 14.6 degrees, horizontal FOV: 26.4 degrees)

Auditory Stimulus Presentation System

OptoAcoustics OptoActive II ANC Headphone with FOMRI-III™ Noise Cancelling Microphone

Siemens Built-In Audio (Loudspeakers, Headset, In-ear)

Avotec Silent Scan (On Request)

MR Confon (On Request)

Subject Response System

Interface - Current Designs Birch Interface & Power Supply

Button Box - Current Designs Pyka 8 Button Bimanual - Thumbs Disabled

Button Box - Current Designs 8 Button Bimanual Curved Lines

Button Box Keyboard Signals(index to pinky): Right Hand "1" to "4", Left Hand "6" to "9", Scanner Trigger "5"

Simultaneous Eye-Tracking Recording

SR Research EyeLink 1000 Plus

Simultaneous EEG Recording

EGI MR-compatible Geodesic EEG System 400

Brain Products BrainAmp-MR EEG System

Physiological Recording

Siemens (breathing, pulse, ECG)

Biopac (breathing, pulse, ECG, skin conductance, O2/CO2 exhale concentrations, blood pressure)

Patient Monitoring Camera System

MRC-Systems 12M Cameras (subject face and subject body)

MR Safe Prescription Glasses

Wardray Premise Mediglasses (lenses: +6.0 to -6.0 in 0.5 steps)

MRI Simulator and Related Equipment

Mock (OT) MRI Simulator

Psychology Software Tools MRI Simulator (working table, bore-lights, bore-fans, loudspeaker for “scanner noise”, maximum subject weight: 135kg / 300lb, table/head-coil padding, back support pillow, subject-specific sheets/pillow-cases)

Stimulus Presentation Computer

Dell Precision 5820 (connected to most other stimulus equipment, common stimulus software installed: E-Prime, Presentation, PsychoPy (python), PsychToolBox (matlab))

Cables for Researcher Laptop/Device

KVM plus equipment cable bundle including: two video cables with common port adapters, audio in/out cables, KVM USB (response box)

Visual Presentation System

BenQ X1300i - 1080p and 120Hz to match the MRI VPixx system.

Audio Presentation System

Optoacoustics Non-MR Audio System - A simpler non-MR version of our MRI audio and communication system.

Subject Response System

Button Box - Trainer Pyka x 2

Button Box - Trainer 4 Button Curve Right/Left

Button Box Keyboard Signals(index to pinky): Right Hand “1” to “4”, Left Hand “6” to “9”