

Technical Information



3T MAGNETOM Prisma Fit

Siemens Healthineers

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Description

The MRI platform at CIBM MRI UNIGE is exclusively dedicated to research and features a state-of-the-art Magnetom Prisma Fit, which was upgraded in 2022 with the latest XR 80/200 gradient system and parallel transmit capability using TimTX TrueShape. This Excellerate edition allows for efficient acquisition of a wide range of MRI sequences, including Compressed Sensing and Simultaneous Multi-Slice, enabling faster imaging. Although optimized for brain imaging, this MRI configuration also offers versatile applications, including spine, body and cardiac imaging.

Specifications

- **Available coils:** Head 20/32/64, Spine 32, Body 18/30
- **Software:** Syngo XA30
- **Specific packages:** MR Fingerprinting, Advanced Diffusion, MapItSyngo, Arterial Spin Labeling 3D, Advanced Cardiac & CS Cardiac Cine
- Configuration with Table Control at the Rear Panel for easy installation of additional materials installation (e.g., MR-compatible EEG)
- More information about Siemens Prisma can be found here: <https://www.siemens-healthineers.com/magnetic-resonance-imaging/3t-mri-scanner/magnetom-prisma>

Additional related infrastructure

- **Rooms available in the facility:** Behavioural Room, Parallel Testing Room, Psychophysiological Room, EEG Lab, Sleep Lab, Vision Lab, VR Cave
- Eye-Tracker Eye Link 1000 Plus
- Physiological data acquisition (Biopac system): pulse, respiration, electrodermal activity, tri-axial accelerometers, force transducer, ...
- MR compatible EEG (BrainAmp MR)
- NIRS (Near-Infrared Spectroscopy) Artinis

- **MR-compatible audio system:** Sensimetrics S14 and MR Confon
- **Response Devices (Current Designs):** 4 buttons, 5 buttons, Tethyx joystick, trackball, hangrip.
- Optical microphone Sennheiser
- MRC 12M camera
- MSA Thermal Stimulator
- 47" 3D LCD screen compatible with stereotastic vision for Virtual Reality immersion (MagnetVision 3D)
- fMRI Driving System (Current Design) for spatial navigation driving experiment

Software:

- **Task Presentation:** Matlab, E-Prime, Cogent, Psychtoolbox, PsychoPy
- **Real-time processing:** OpenNFT, OpenVibe, Brain Voyager