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Compact MRI

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There is a very real need for compact MRI's which are small and light enough to be essentially portable. This is especially true when you consider strokes. Not only does rapid diagnosis enable fast treatment but it is also essential before commencing treatment to determine the type of stroke. We have designed a compact MRI using HTS specifically to enable cephalic imaging. Using HTS enables us to minimise the footprint of the magnet and to operate cryogen free at 20K. The magnet is designed to run at 500 Amps which will provide a 1T imaging field. The magnet has an inductance of 85 mH and uses 3km of tape. The internal diameter of the magnet is 55cm which is sufficient to fit the shoulders of an adult male. To further minimise the footprint of the magnet it is powered using a flux pump which provides a compact means of supply. The magnet has been designed in Cambridge and is built in China by Professor Liu's team

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