**Mock MRI Software**

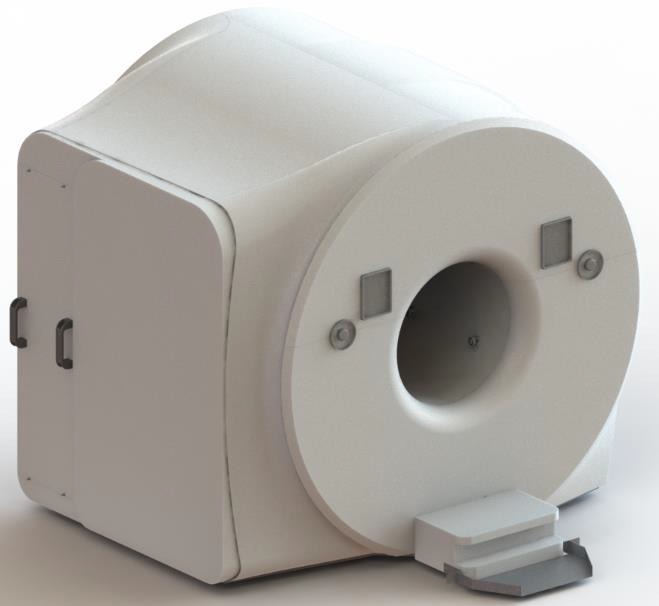
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Magnetic Resonance Imaging (MRI) is a non-invasive diagnostic technique that uses strong magnetic fields and radio waves to create detailed images of internal body structures, including in children. However, children often move during scans and may require sedation, which can be costly and risky. Our project aims to improve pre-MRI training efficiency and accuracy by utilizing Farneback’s optical flow algorithm for motion detection. This will detect small movements during scans, and help instructors better teach children how to behave during scans, leading to better outcomes in pediatric MRI scans while reducing costs and health risks.

**Keywords:** Magnetic resonance imaging (MRI), motion artifacts, pre-MRI training, mock MRI, computer vision, GUI, motion detection, accuracy, efficiency, cost reduction, risk reduction, Farneback, optical flow.