

Mobile Micro-Scale Robotics for Manipulation and Assembly

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Micro-scale mobile robots can physically access small spaces in a versatile and non-invasive manner. Such microrobots under 1 mm in size have potential unique applications for object manipulation, local sensing and cargo delivery in healthcare, microfluidics and advanced materials fabrication. These devices are powered and controlled remotely using externally-applied magnetic fields for motion in 2D and 3D. This talk will introduce our experimental work in micro-manipulation using single and teams of such devices.

BIOGRAPHY



Dr. Diller is an Assistant Professor in the department of Mechanical and Industrial Engineering at the University of Toronto. He received his B.S. and M.S. in Mechanical Engineering at Case Western Reserve University, and Ph.D. at Carnegie Mellon University in 2013. His current work focuses on fabrication and control relating to remote actuation of micro-scale devices using magnetic fields, micro-scale robotic manipulation, smart materials, and swimming at small size scales.