UNIVERSITY OF
TORONTO
Robotics Institute

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December 15, 2021

**TO: Mayor Tory and Members of Toronto City Council
VIA: EMAIL**

Dear Members of Toronto City Council,

We are writing to submit comments about item *IE26.12 Automated Micro-Utility Devices - Accessibility Feedback*. Per the adoption of this item in the Infrastructure and Environment Committee, a motion is scheduled for council for December 15, 2021. The motion seeks to amend City of Toronto Municipal Code Chapter 886 and implement a complete ban of so-called Micro-Utility Devices (MUDs) from operating or stopping under any conditions in the public realm.

Our understanding is that this motion is intended to protect disabled and physically disadvantaged members of the public from barriers to using the public realm. **We are wholeheartedly aligned with the intent of the motion. We are concerned, however, that the motion's representation of MUDs may have missed some important nuances in the field of robotics.** With this letter, we would like to bring light to the research conducted at the University of Toronto with respect to MUDs, or *service robots*. Specifically, we would like to offer our technical expertise, which we hope can be helpful in informing regulatory frameworks, and furthermore, to offer an invitation to visit the Robotics Institute and see the work we are doing.

The University of Toronto Robotics Institute is home to the largest and most diversified robotics research program in Canada. Serving as the headquarters for robotics collaboration at UofT, we bring together leading robotics experts from across the university, and around the world, to develop robotics technologies that serve humanity's needs in the areas of mobility, manufacturing, and healthcare.

Many students, faculty and staff at the institute conduct research towards the realisation of robots that are in line with the intentions of the city's motion – by removing barriers. Research topics at the University of Toronto Robotics Institute include the design of service robots and autonomous wheelchairs for the physically impaired, robotics to support aging in place, safe deployment of mobile robotics systems, and design of socially compliant mobile navigation systems, among others.

Beyond the university, we are proud to be in Toronto, which is quickly developing into the most diverse environment for robotics in Canada, and one of the best in the world. In the past, we have seen the disruptive impact on the city of technologies that were primarily developed outside Canada -- such as ride-sharing platforms and online lodging marketplaces -- that did not always take into consideration Canadian values. In the case of robotics, we believe Torontonians have a legitimate and unique opportunity to ensure that our culture and values are incorporated in the development of robotics technology. Moreover, **by allowing such research to continue, Toronto can assert itself as a global thought leader in these matters, helping set the international standards that will bring safe, inclusive robotics technologies to the rest of the world.**

We are available to provide information that offers diverse perspectives on robotics to the City Council, including answering questions about the state of the art in safety and the potential impacts that different robotics applications can have on communities in the city, whether positive or negative.

Sincerely, on behalf of the University of Toronto Robotics Institute and the AGE-WELL NCE,

Prof. Alex Mihailidis
Scientific Director
AGE-WELL NCE Inc.
KITE REsearch Institute at
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Hallie Siegel
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University of Toronto Robotics
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