

REPORT

To the Honorable Mayor and City Council
From the City Manager

November 13, 2017

SUBJECT

Extension and modification of a pilot program allowing the use of autonomous robots for delivery of goods in Redwood City

RECOMMENDATION

Adopt a resolution approving the extension and modification of a pilot program to allow the use of autonomous robots, also known as Personal Delivery Devices (PDD), for a period to expire December 31, 2018 and determining that the extended and modified pilot program is categorically exempt from CEQA pursuant to Section 15305 of the CEQA guidelines. The modified program would require participating companies to obtain a permit that establishes the terms and conditions associated with the program in order to allow the use of their robots on City sidewalks and streets

BACKGROUND

In November 2016, the City Council authorized the creation of a nine-month pilot program allowing Starship Technologies to operate their Personal Delivery Devices (PDD) on Redwood City streets and sidewalks. Use of PDDs may help reduce traffic in Redwood City as the PDDs operate on City sidewalks, not on City roads, and deliveries may occur to homes, reducing customer vehicle traffic as well. Additionally, they allow for some restaurants and businesses to serve a greater number of customers, supporting business activity and customer convenience. Starship has been delivering to Redwood City residences and businesses since February 2017 in partnership with Door Dash and Post Mates. They currently are making 30 to 40 deliveries a day between the hours of 10:00 am and 6:30 pm, using 12 robots.

The current model of the robot operating in Redwood City can carry the equivalent of three grocery bags worth of goods and weighs about 50 pounds when fully loaded. The PDD is autonomous, using nine on-board cameras to assist in its travels along the sidewalks and going no more than four miles per hour. At street crossings, it is assisted by a human controller to ensure it is safe for the robot to cross the street and not impede traffic. The PDDs travel throughout a five-mile radius from their docking point. Customers can establish their delivery times, track their items while in transit on the mobile application at all times, and securely retrieve their items with their unique code that opens the robot.

The pilot program in Redwood City was the first of its kind in the United States. Currently Starship is operating in nine other cities in the Bay Area and Washington D.C.

Several other states have recently adopted regulations for autonomous delivery vehicles and devices, including Florida, Wisconsin, Idaho, Virginia, and Ohio.

The current pilot program expired in August, 2016. Starship is seeking an extension of their pilot program in Redwood City due to the success of the deliveries and their hope to maintain Redwood City as their Bay Area headquarters. Starship continued to operate while the pilot program extension was scheduled to be brought back to the City Council for review. Starship is currently exploring opportunities to begin deliveries of library materials in partnership with the City of Redwood City Library, if the pilot program is extended.

ANALYSIS

Robot deliveries through the PDD Pilot Program in Redwood City have been occurring since February 2017. During that time, the City has received two complaints about the delivery robots. A second robot operator has also expressed interest in operating in Redwood City. Staff recommends extending the pilot period in order to continue providing a product delivery option for local businesses that does not add to road congestion. Staff also recommends allowing a maximum of two operators during the pilot period, and adding program conditions to address concerns that have arisen to date.

Some additional conditions are:

- Add business and contact information to the robot: ,
 - Include a plate or marker that may be easily read by pedestrians near the PDD and that identifies the Permittee's website address and contact information. Lettering shall have a font size that is a minimum of 1" tall.
- Establish more defined operating restrictions in regards to allowed locations and interference with pedestrians or traffic
 - Not unreasonably interfere with pedestrians or traffic, and yield to pedestrians, including, without limitation, pedestrians using personal assistive mobility devices, persons using skates or skate boards on the sidewalk, and cyclists using any sidewalk, crosswalk or public thoroughfare.
 - Not operate on a State or County highway or private roadway where the City does not hold an easement right allowing public access, including the sidewalk, crosswalk, or public thoroughfare associated with said State or County highway or private roadway unless express authorization by the owning jurisdiction/entity is received and provided to the City.
- Require the operator to report specific incidents or complaints regarding the robots,

- Permittee shall document and report to City every incident involving an injury to an individual and/or animal; every incident resulting in damage to property; every incident involving a collision with any individual, animal, or property; any other operational safety issues; and any complaints from members of the public. These incident reports shall, at a minimum, include the location, circumstances and description of the incident or safety issue. Permittee shall transmit incident reports to City within six hours of any incident involving an injury to a person or animal and within 24 hours for any other incident or safety issue. In addition, all data capturing any incident shall be stored, maintained, and be readily available for retrieval by the City for a period of two years.
- Require additional insurance.
 - Protection of Property – Liability, Repair, Sidewalk Access Ramps, and Warranty provisions.

The new conditions of approval are provided in Attachment 1.

The additional company, if it chooses to operate in Redwood City, would need to comply with all of the required conditions set forth in the program. If the proposed pilot program extension is approved by the City Council, the City Manager could approve participation in the revised program by both Starship and one other robot operator.

ALTERNATIVES

Council could require additional provisions for the pilot program, or end the pilot program allowing autonomous delivery robots.

FISCAL IMPACT

There is no fiscal impact to the City to extend this pilot program.

ENVIRONMENTAL REVIEW

As the lead agency, the City of Redwood City has determined that the actions proposed in this Resolution are considered Categorical Exempt pursuant to Section 15305, Class 5 of the California Environmental Quality Act (CEQA) Guidelines. Class 5, Minor Alterations in Land Use Limitations, includes alterations in land use limitations in areas with average slope of less than 20%, which do not result in any changes in land use or density.



CATHERINE RALSTON
ECONOMIC DEVELOPMENT MANAGER

Melissa Stevenson Diaz

MELISSA STEVENSON DIAZ
CITY MANAGER

Attachment

1. Resolution