

ACCELERATING INNOVATIVE MOBILITY (AIM) GRANT



SHUTTLE OF THE FUTURE: MID-SIZE LEVEL 4 AUTONOMOUS ZERO EMISSION SHUTTLE BUS DEPLOYMENT

HOUSTON METRO

IN PARTNERSHIP WITH PHOENIX MOTORCARS, EASYMILE, AND AECOM



U.S. Department of Transportation
Federal Transit Administration

PROJECT SUMMARY

Automation Level(s): 4

This project will develop and test a Level 4 automated, all-electric shuttle bus, the EZ Zeus. This shuttle bus will be FMVSS, ADA, and Buy America compliant. It will be built on a proven E-450 Ford chassis. Houston METRO will use EZ Zeus to conduct a 12-month demonstration connecting METRO’s high-capacity transit system via the Route 54 bus route and Purple Line light rail station.

PROJECT GOAL

- Improve neighborhood mobility for first- and last-mile connectivity by providing a mid-size Level 4 autonomous zero-emission shuttle to serve as a first/last mile community connector to those areas with limited transit options

VEHICLE INFORMATION

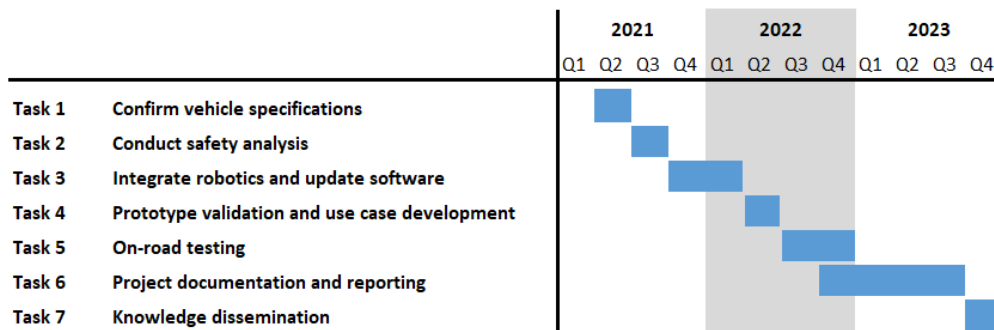
This project will use the EZ Zeus 400, provided by Phoenix Motors, which is a shuttle bus built upon a proven E-450 Ford chassis. EasyMile will apply its automated driverless technology to finalize creation of the prototype autonomous Level 4 shuttle bus. The shuttle bus will be FMVSS, ADA, and Buy America compliant. The shuttle bus will be capable of carrying 12 passengers and two wheelchairs. The vehicle will also be all-electric and zero-emission.

DATA COLLECTION, MANAGEMENT, & SHARING

Houston METRO and AECOM will work with other project partners to evaluate the effectiveness of the pilot shuttle service from the perspective of the passengers and public. Together, they will collect the following types of information. All observations will be made while denoting time of day, day of week and weather conditions (temperature, real-feel temperature, wind speed/direction, dew point, humidity, barometric pressure, precipitation). Collected data will include: number of passengers; passenger pre- and post-ride observations/expectations; number of emergency stops; battery performance per route and day; battery charging rate; battery charging issues; vehicle heater/AC usage; number of instances when the driver must take manual control per route.

PROJECT STATUS & SCHEDULE

The project has not yet begun, but is estimated to have a 33-month duration, starting in April 2021.



BUDGET

FTA AIM Grant Funding	Non-Federal Cost Share	Total Amount
\$1,473,435	\$884,000	\$2,357,435