

Abstract

Measuring Sustainability in an Austin-based Start-Up

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Start-ups are crucial to creating a sustainable future and must be a better sustainable choice than current standards for the future. Here we examine an Austin based payload transportation start-up to determine if it produces less emissions than other payload delivery systems. Delivery drones have been proven as sustainable alternatives to industry standards for first- and last-mile delivery and have been recently compared to start-up Tubular Network's payload delivery system. Data from independently conducted experiments was used to compare which delivery system, delivery drones and Tubular Network shuttles, is more sustainable, and a better option for the future. Results indicate that while both options are more sustainable than current industry standards, the drones performed slightly more efficiently than the Tubular Network shuttles and had advantages in movement flexibility leading to delivery drones being a better last-mile solution. The delivery drones could only carry a fraction of the weight that the Tubular Network shuttle can carry and are not as good options for scaled growth and varying parcel weight, making Tubular Network a better option for first-mile transportation. Given the current stage of the technology and the growth expected, Tubular Network is deemed a generally better transportation solution option and is expected to lead the transportation sector to a decrease of emissions.

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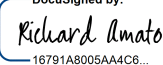
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