

# Autonomous Hospital Cart

<b>Status:</b>	Filled
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<b>Sponsor(s):</b>	Self-Funded
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## Project Description

Hospitals are becoming increasingly busy and wasteful in the developed world. Our team believes hospitals lag the technology implementation curve and as a result experience sub-optimal efficiency. Some far too common problems in hospitals include over-crowded waiting rooms, long operating wait lists, and the constant disposal of large amounts of PPE following any potential contact with a quarantined individual. The foundation of these issues can be attributed to hospital labor shortages, expensive staff, and outdated PPE disposal practices.

**Our project** is an autonomous tray cart to deliver items to patients, particularly those in isolation. After exiting the quarantined room, the tray cart will enter a self-sanitizing station where it is flashed with UV light. This solution is intended to remove tedious and repetitive tasks for hospital staff, particularly nurses, to allow them to do more crucial work while also significantly reducing waste. This will in turn free up hospital staff time helping reduce labour shortages and improve the economics of the hospital.

### **Involves:**

- Autonomous cart design
- Motor(s)
- Sensors
- Feedback control system