

# Upgrading Pneumatic Tube Station Wireless Arrival Alarm for Discharge Lounge

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## Aim

To develop a more **cost-effective solution** for discharge lounge to **receive discharge documents promptly** without relocating the Pneumatic Tube Station (PTS).



## Background

The discharge lounge does not have a PTS, leading to inefficiencies in the delivery of discharge documents to the patients before discharge. Relocating the PTS from the patient service centre was deemed too costly, and the downtime during installation works made it impractical.

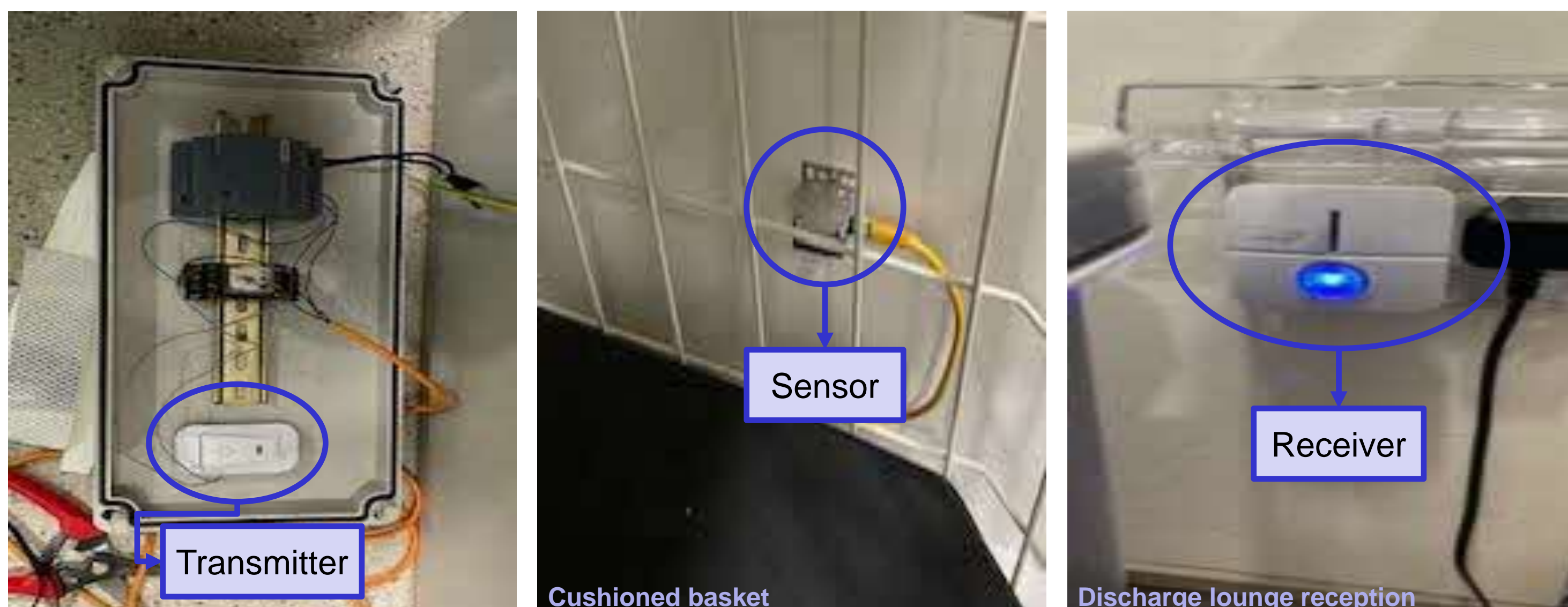


## Team Members

Name	Designation	Department
Balasubramaniyan Murali	Senior Engineering Assistant	Facilities Management
Lee Han Xiang	Assistant Manager	Inpatient Services
Manjit Kaur	Senior Nurse Manager	Nursing Administration
Xu Hongying	Nurse Clinician	Nursing Administration

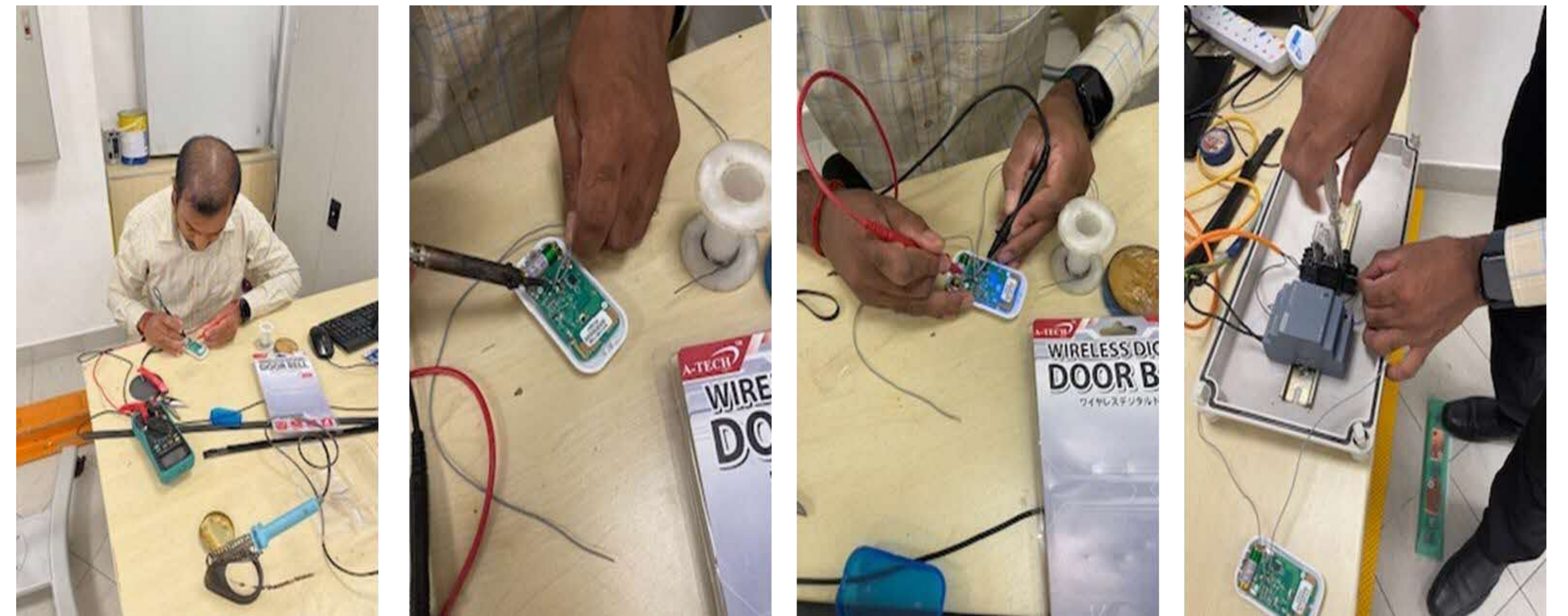
## Interventions / Implementation

To address the lack of PTS in the discharge lounge, a wireless canister arrival alarm system was made by repurposing old Automated Guided Vehicle (AGV) kitchen conveyer parts and a modified wireless home doorbell system. A sensor connected to the doorbell transmitter is attached to the side of a cushioned basket and placed below the PTS system in the patient service centre. The doorbell receiver is then placed at the discharge lounge reception and will alert staff when the sensor senses the canister in the cushioned basket.



## Onward 2026

This project exemplifies YH's Onward 2026 values through **operational resilience**. By devising an innovative solution spearheaded by in-house FM staff, we avoided incurring additional costs and service disruptions. The solution ensured the timely delivery of discharge documents, providing a seamless discharge process for patients while significantly enhancing the productivity of discharge lounge. This initiative highlights the capability and ingenuity of the FM and inpatient operation team in delivering impactful results aligned with YH's vision.



## Results & Outcomes

Discharge lounge staff saved an average of 15 mins per patient without a need to manually retrieve documents from wards. The lounge received an average of 1800 patients per year (150 patients per month) with an equivalent of 450 hours savings per year. The time savings has increased operational efficiency and patient engagements.

This implementation has had many positive outcomes such as **improved efficiency and cost savings**. Compared to the original proposal of relocating the PTS, which was estimated to have cost \$4000, this canister arrival alarm system costs only \$26.90. This system has also greatly **reduced the amount of time** taken to process incoming discharge documents, leading to faster patient discharge and bed turn around time.



## Conclusion

The successful implementation of this wireless canister arrival alarm system has proven to be a **cost-effective and sustainable solution** in addressing the lack of a PTS in the discharge lounge.