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## Directional Speaker Poster

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### Project Overview

Changi Airport is set to expand with a new terminal, Terminal 5. Currently, many of the airport's processes are manual, requiring a high dependence on staff. This proposal aims to incorporate automation and AI for a smoother passenger

### Objectives

- 1.Reduce dependency on airport staff.
- 2.Implement an AI-assisted directional speaker system.
- 3.Enhance privacy and reduce noise pollution in terminals.
- 4.Aid passengers who are suffering from dementia

### Technology

- Directional Speaker with AI:** A speaker that directs its audio specifically to a person standing in a designated area.
- Privacy Touch Screen:** Screen with a privacy filter to ensure personal details are not visible to others.
- Voice Recognition Software:** To identify and interact in the passenger's native language.
- Request for Assistance Button:** For passengers who need human assistance.

### Intended results

- 1.Improve passenger experience with reduced human interaction.
- 2.Reduction in staffing at entrance to the boarding hall and security checkpoints.
- 3.Enhanced security measures for verifying passports and boarding pass details.
- 4.Reduce miscommunication and confusion among passenger and staff

### Conclusion

- Noise Reduction:** Through the implementation of the proposed solution, noise pollution and its detrimental effects on passengers can be minimised.
- Passenger Experience:** With privacy screens and AI-assisted speakers, information is relayed only to the intended passenger, ensuring a confidential travel experience.

### References

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### Support for passengers suffering from dementia

Passengers who are suffering from dementia. Something similar to that of the "dementia go to point" in MRT stations. The passenger would be able to press a button to request for staff assistance

