



## Learning Outcomes



# SA1-Topic1 The Maze Navigator

## Cross-disciplinary STEAM knowledge

- ❖ **Science:** Understand the principles behind ultrasound
- ❖ **Technology:** Learn about circuit boards, ultrasonic sensors, and FlipCode coding environment
- ❖ **Engineering:** Assemble the E310 robot and learn basic mechanical principles
- ❖ **Arts:** Collaborate on and design a creative presentation
- ❖ **Math:** Analysis and manipulation of motor strength and sensor sensitivity

## Logic and Creativity

- ❖ Operating the Variable Control Board
- ❖ 'If...Then...Else' programming logic
- ❖ Introduction to 'Functions' in coding

## STEAM Literacy

- ❖ **Critical Thinking:** Providing personal perspectives on discussions and course questions
- ❖ **Creativity:** Creative ideas for the assembly and programming of robots
- ❖ **Complex Problem Solving:** Analyse, break down, and solve problems
- ❖ **Communication:** Team deliberation, classroom discussions and presentations
- ❖ **Collaboration:** Teamwork, task allocation, and achieving challenge objectives together