



SA1Topic1 The Maze Navigator

| Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 |
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| Mysteries of the Robot <ul style="list-style-type: none"> Onboard the FlipBoat Robots in the world Design your ideal robot | Maze Navigator Assembly I <ul style="list-style-type: none"> Screws and nuts The FlipBrain & Chassis | Maze Navigator Assembly II <ul style="list-style-type: none"> Inclined surfaces and screws Motors and wheels | Button Controller <ul style="list-style-type: none"> Button Controller assembly Controller practice | The 'S' Shaped Challenge <ul style="list-style-type: none"> Complete the 'S' shaped course | Ultrasonic Sensor <ul style="list-style-type: none"> Principles behind ultrasound Common ultrasound applications |
| Lesson 7 | Lesson 8 | Lesson 9 | Lesson 10 | Lesson 11 | Lesson 12 |
| Ultrasonic Distance Test <ul style="list-style-type: none"> Analyse ultrasonic data Ultrasound Ranging experiment | Variable Control Board <ul style="list-style-type: none"> Functions and applications Variable Control Board coding experiment | Straight Line Obstacle Challenge <ul style="list-style-type: none"> Understanding and adjusting variables Multiple-obstacle course | Introducing FlipCode <ul style="list-style-type: none"> Functionality overview Guided coding | Rushing Robot <ul style="list-style-type: none"> Execute commands Program code to complete straight line challenge | Time Concepts <ul style="list-style-type: none"> The delay function Delayed stopping challenge |
| Lesson 13 | Lesson 14 | Lesson 15 | Lesson 16 | Lesson 17 | Lesson 18 |
| Rotation of the Robot <ul style="list-style-type: none"> Controlling the motors Parallel parking | Logic and Functions <ul style="list-style-type: none"> Creating functions Ultrasonic sensor coding "If, then, else" logic | Maze Race I <ul style="list-style-type: none"> Final challenge activity Pt.1 | Maze Race II <ul style="list-style-type: none"> Final challenge activity Pt.2 | Collate Results <ul style="list-style-type: none"> Creative discussion Organise conclusions Illustrations | Presentation <ul style="list-style-type: none"> Present and share results Course concludes |