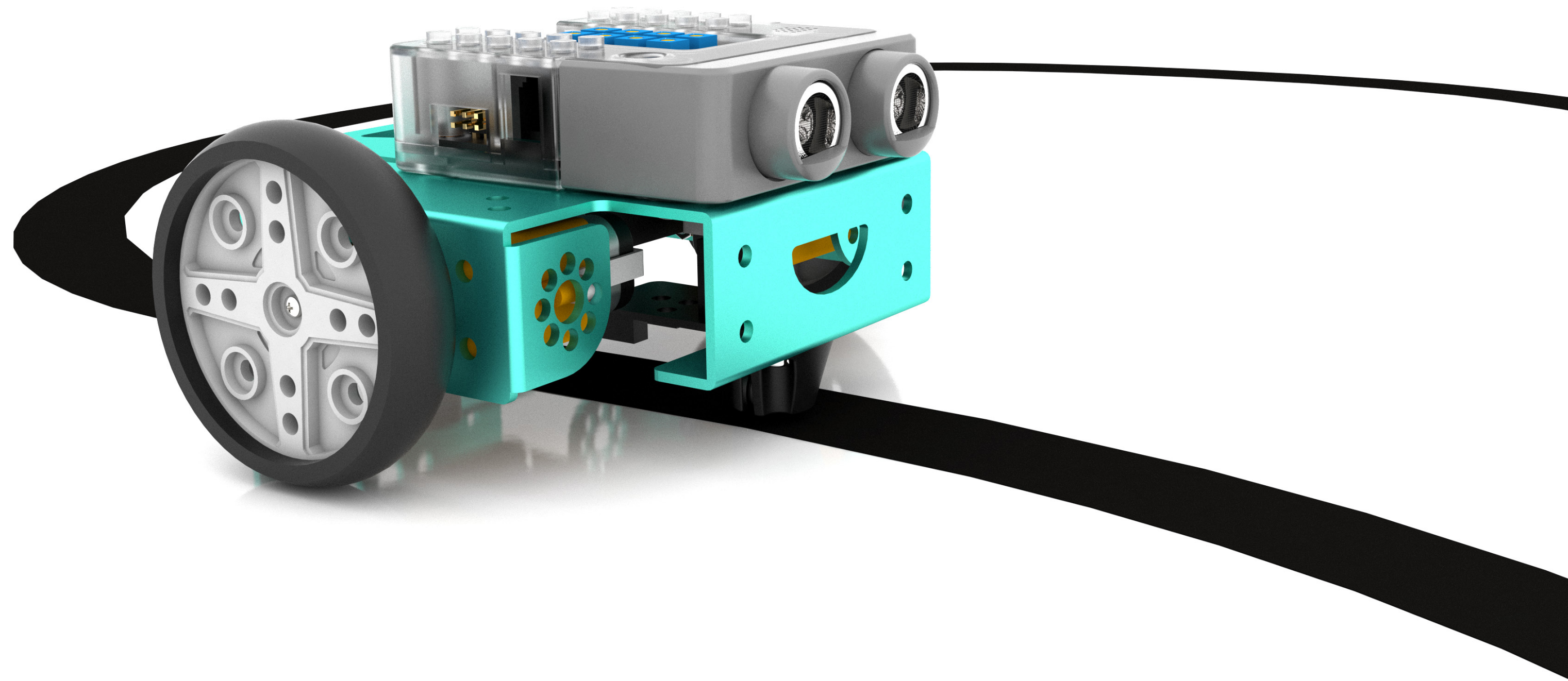




ROBOTICS *COMPETITION*

PRACTICE PROJECT 2

Line Tracing



SCENARIO

Navigate your smart car along the roads of a Smart City using the infrared sensors. During your training we will provide you with the details you need in order to turn your FlipRobot into a smart car.

MISSION

Part 1 of this practice scenario is a basic line trace using the infrared sensors from a starting point to a finishing point.

Part 2 of this practice scenario is a more complex line trace that involves staying within the two defined lines whilst moving forward from a starting point to a finishing point.

LEARNING OUTCOMES

- Learn to use FlipCode to control DC motors' movements.
- Learn to use If/Do/Else logic in FlipCode.
- Learn to create and apply programming functions.
- Learn to program Infrared sensor for line tracing.

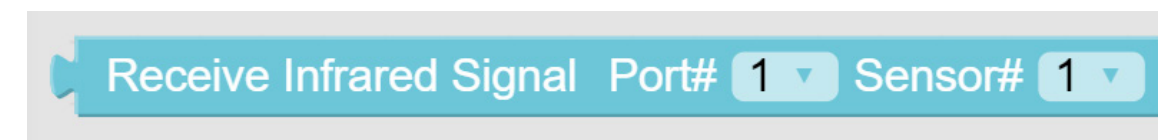
WHAT YOU'LL NEED

EQUIPMENT

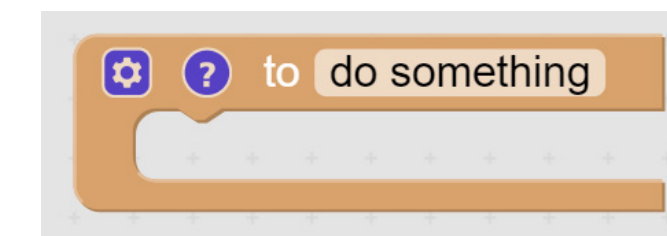
- FlipRobot E310+
- Laptop
- Charging/Connection cable
- White Cardboard Sheets
- Black Electrician's Tape

FLIPCODE BLOCKS

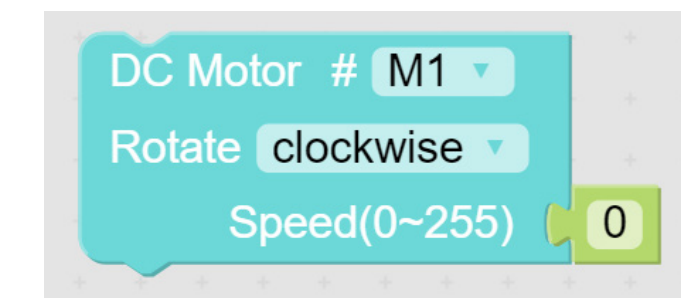
Infrared
Sensor block



To do something
Functions block



DC Motor
Motor block



Number
Math block



Equals
Logic block



If and Then
Logic block

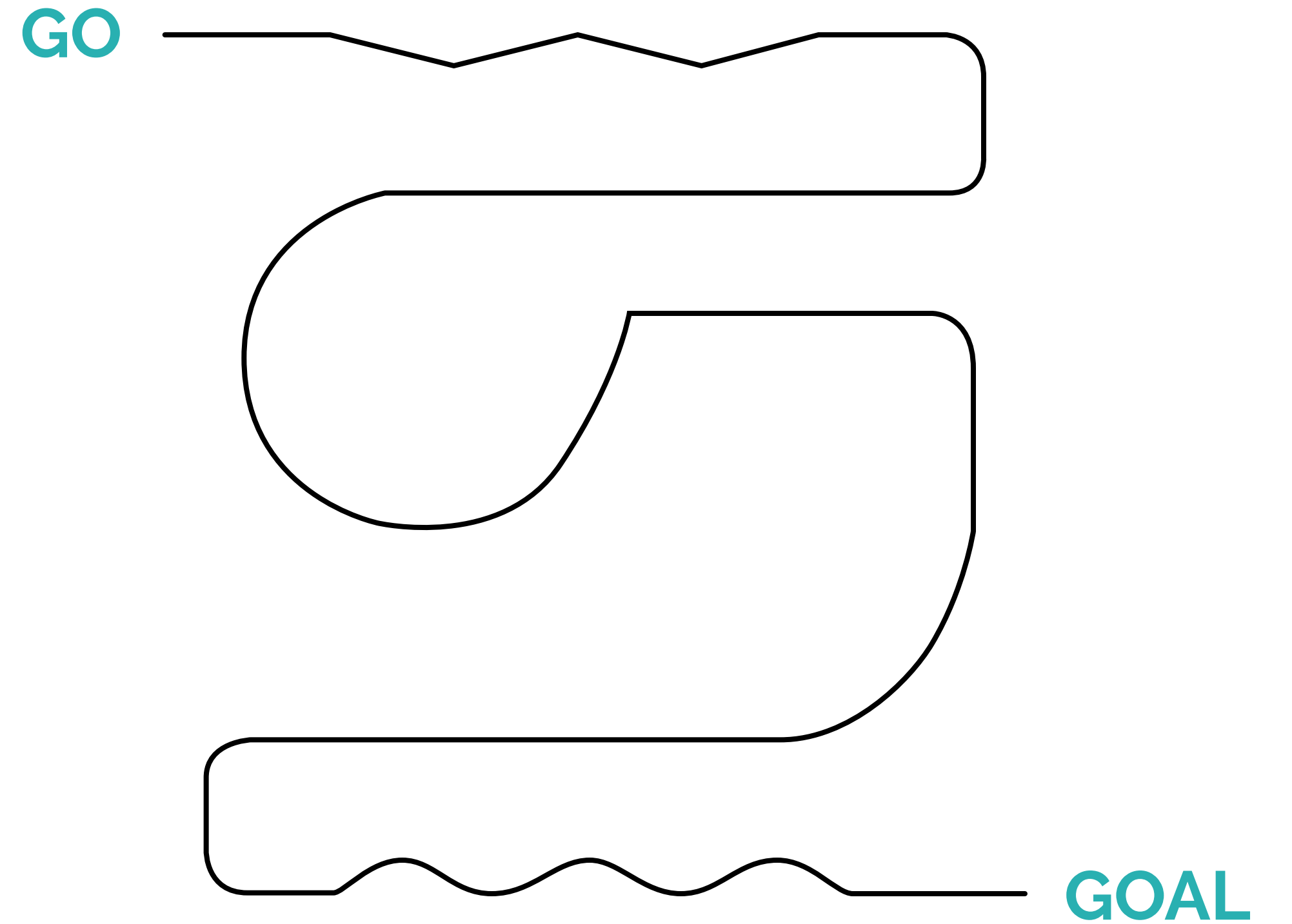
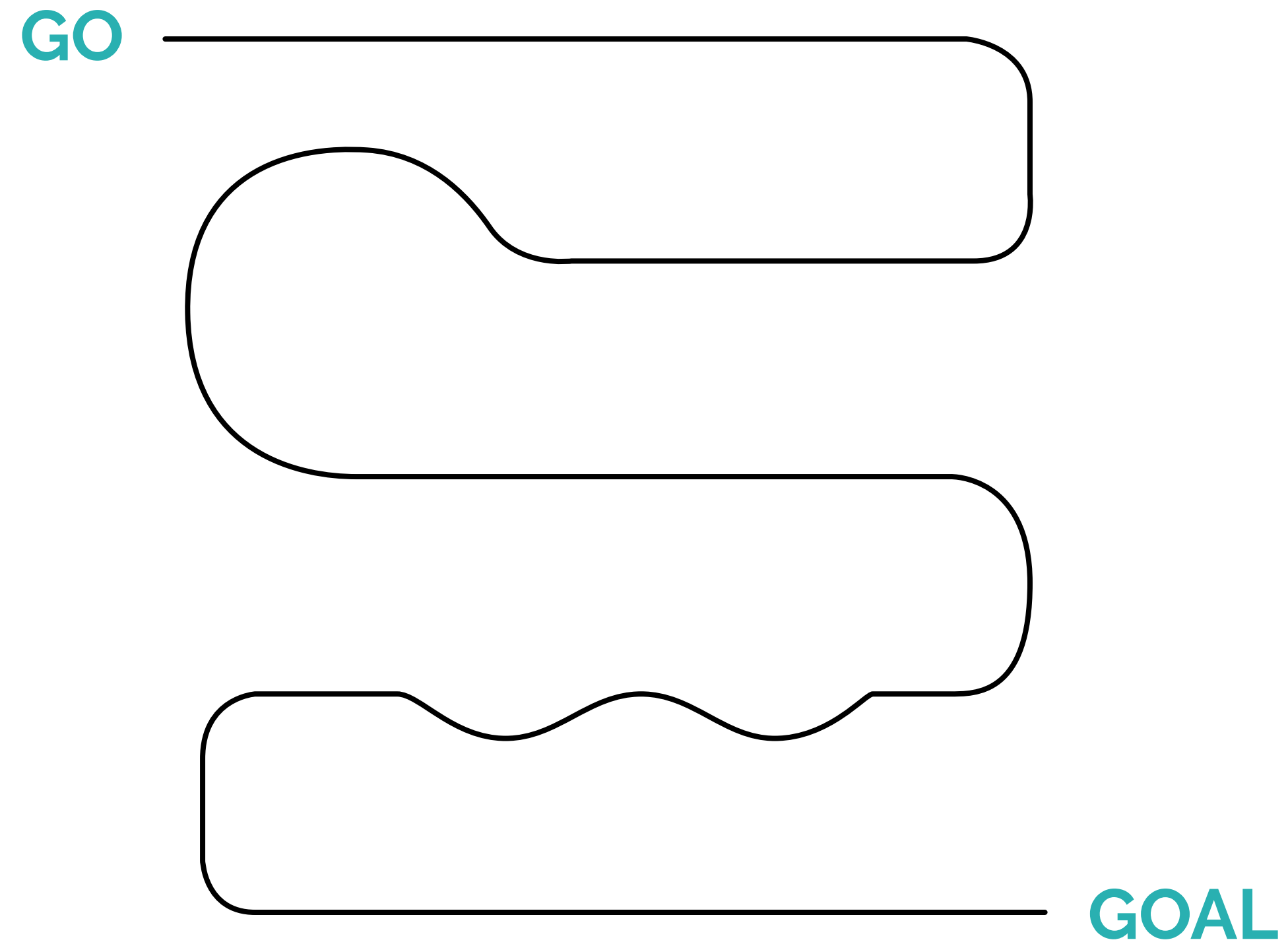


And
Logic block



PART 1

Follow the line from Go to Goal



PART 2

Drive safely within the lanes

