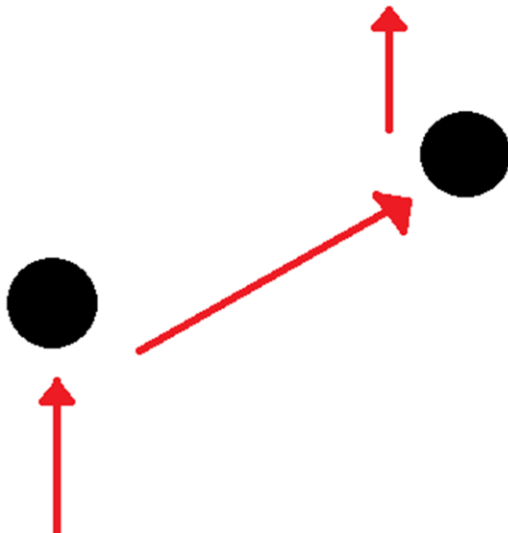# invent!

Exercise 3

1

a) **What is an input?**

b) **Which of these components are inputs?**

Switch, LED, Buzzer, Battery, Microcontroller

c) **Describe the difference between an IF and an IF ELSE statement**

A

Which program will follow the red path when it collides with the black obstacles? The left wheel is connected to M1, the right wheel is connected to M2, the left sensor is connected to A and the right sensor is connected to B.


```
program start
do forever
  motor 1 FORWARD at 75 %
  motor 2 FORWARD at 75 %
  if  A is HI  then
    motor 1 FORWARD at 75 %
    motor 2 REVERSE at 75 %
    wait 1 seconds
  end if
  if  B is HI  then
    motor 1 REVERSE at 75 %
    motor 2 FORWARD at 75 %
  end if
loop
```

B

What effect will the other program have?

```
program start
do forever
  if  A is HI  then
    motor 1 REVERSE at 75 %
    motor 2 FORWARD at 75 %
    wait 1 seconds
  end if
  if  B is HI  then
    motor 1 FORWARD at 75 %
    motor 2 REVERSE at 75 %
  end if
  motor 1 FORWARD at 75 %
  motor 2 FORWARD at 75 %
loop
```