inVent!

Exercise 5

1

a) What type of light does the line sensor module use?

b) Does a line sensor read HI or LO if it is on a white surface?

c) How many combinations of outputs are there for the two line sensors?

For this program:

a) What is wrong?
b) What effect will it have?
c) How can you correct it?

?

2

The program should follow a black line on a white background. The left line sensor is connected to A, the right sensor is connected to B, the left motor is connected to M1 and the right motor to M2.

3

Write some blocks to put in the top IF block for when the robot loses the line. These blocks should make the robot reverse slowly until either line sensor finds the line again.

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