Robokid
PLUGGED INTO TECHNOLOGY

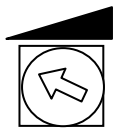
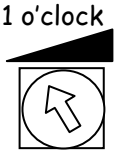
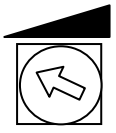
Activity 8 worksheet : line follow

Experiment 1

1. Tape the three path sheets together. Line up the two As and the two Bs to form a correct path. Use two small pieces of black tape (each about 2 cm) to cover the gap between the sheets.
2. Use the robot with the switch controller disconnected.
3. Place your robot at the beginning of the line (either end) with the front two sensors on either side of the line. Select mode "**F0**". Switch sequence is "**A_3D_2A**".
4. Now press **SW-A** to start. If all is OK the robot will work its way along the black line. If it reaches the end of the line or wanders off the line then pick it up and press **SW-A**.
5. Watch how it zigzags along the line.

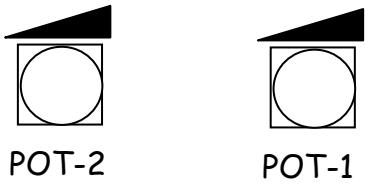
Experiment 2

1. This experiment will use the POTs
   POT-1 :: Sets the speed of the robot
   POT-2 :: Sets the amount of turn when the robot detects the black line
   POT-3 :: Unused in this experiment but MUST be set to its 12 o'clock position – that is, pointing to the battery.
2. Do the following tests and record your results

Experiment	POT-2	POT-1	What happened?
A	1 o'clock 	10 o'clock 	
B	11 o'clock 	10 o'clock 	

Experiment 3

Now try adjusting the settings to get the robot to go as fast as possible without losing the line. Record your best settings



Competition

Make an oval track and start TWO robots on opposite sides. The winner is the robot that catches the other one up.