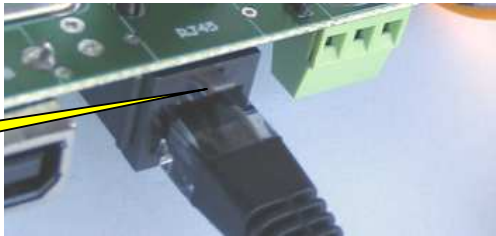
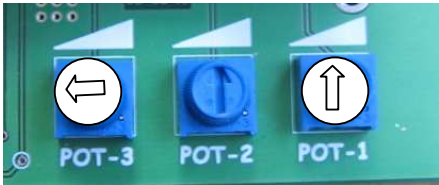
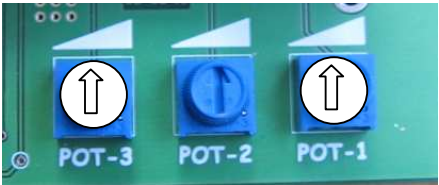
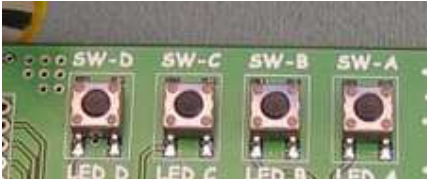




Activity 5 worksheet

Getting your robot to go in curved and straight lines

| | | |
|----|---|--|
| 1. | <p>Remove switch controller from the robot.</p> <div data-bbox="430 525 678 598" data-label="Text"> <p>Press HERE</p> </div>  | |
| 2. | <p>If you are working with the robot on a DESK</p> <ul style="list-style-type: none"> Mark out a 60cm straight line using the black tape Set POT-1 and POT-3 to the following :  | <p>If you are working with the robot on the FLOOR</p> <ul style="list-style-type: none"> Mark out a 120cm straight line using the black tape Set POT-1 and POT-3 to the following :  |
| 3. | <p>Power on the robot and select MODE "A0" by pressing "A_D_2A"</p> <p>(Press SW-A, then SW-D then SW-A twice) (shown as "A-D_2A")</p>  | |
| 4. | <p>When the robot display shows "A0" (no flashing) you can use any of the A, B and C switches. These switches can do the following ::</p> <ul style="list-style-type: none"> Pressing SW-A will cause the robot to move forward. Pressing SW-B instructs the robot's computer to read and remember the three POT values. (speed, differential and time) Pressing SW-C will exit this MODE. | |
| 5. | <p>Place your robot at the start of your black line, set a POT-2 value, press SW-B then press SW-A to cause robot to do the move. Record your results in the table.</p> <p>Repeat for the three POT-2 settings.</p> | |


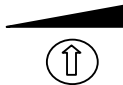

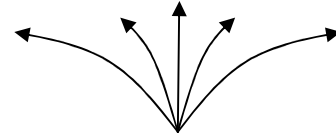
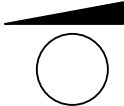
| POT-2 setting | Setting | Observed direction |
|---|---------|--------------------|
|  | LOW | |
|  | MEDIUM | |
|  | HIGH | |

Table 1 POT-2 observations



| | |
|----|---|
| 6. | <p>Using information in table 1 work out the setting for POT-2 to make your robot go as straight as possible. Record the arrow position below.</p> <div style="text-align: center;">  <p>POT-2</p> </div> |
| 7. | <p>You can now experiment with the effect that the other POTs have on the way the robot behaves.</p> <p style="margin-left: 40px;">a. POT-1 controls the speed of the robot</p> <p style="margin-left: 40px;">b. POT-3 controls the amount of time the robot runs (from 2 to 8 seconds)</p> |
| 8. | <p>Understanding what effect the three POTs have will help you in the next activity</p> <p style="text-align: center;">- 10-pin bowling.</p> |