**Pi2Go Programming: Simple Programs**

**AIM:** This exercise sheet provides additional simple programs for you to write for your Pi2Go. It assumes familiarity with worksheets 1-6.

**Exercise 1**: Write a program that will spin the robot for 2 seconds, then take a distance sensor reading and print it to the screen and stop. To print the value of the sensor use: print(pi2go.getDistance())

**Exercise 2**: Write a program which will make the robot’s LEDs flash blue for 5 seconds, then green for 5 seconds and then red for 5 seconds.

**Exercise 3**: Place a Bright Light near your robot. Write a program so that your robot performs a full turn on the spot, printing out the light measurements from each light sensor after roughly each quarter turn. Some experimentation will be needed to work out how long a quarter turn takes for your robot.

**Exercise 4:** Write a program where the robot moves forward changing speed every 10 seconds for a total of 30 seconds.

**Exercise 5**: Pick four colours for the LEDs (we will call the colours A, B, C, D). Write a program so that the robot displays colour A at the front, colour B on the left, colour C at the back, and colour D on the right. It moves forward for 10 seconds. Then it rotates the colours (so A in now on the left, B at the back and so on). Then it spins on the spot for 10 seconds. Then it rotates the colours again. Then it reverses for 10 seconds. Then it rotates the colours again. Then it stops.

**Exercise 6**: Create a short obstacle course for your robot. For instance, a gap between two books it must move through, then a turn to move between two rows of books.

Write a program that will move your robot from the start position to the end position in your obstacle course. To do this you will need to experiment to find out how long it needs to move forward in each stage and how long it needs to turn for in each stage.



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