**Virtual Pi2Go Programming: Programs in Files**



**AIM:** After completing this worksheet you should be able to write a Python program using IDLE’s program editor and execute it in IDLE.

**You Need:** To complete this worksheet you need to have a virtual Pi2Go Simulator (see WS1).

**If the simulator isn’t already running:**

Start it (see WS1) and select the Pi2Go robot and default\_world.xml

Now open a new IDLE window.

You can control your virtual Pi2Go by writing commands at the Python command line. However for longer programs, or programs you wish to run several times this can become tedious. To get around this you can write a Python program in a file.

We are going to consider the following Python program

import simclient.simrobot as pi2go

pi2go.init()

pi2go.forward(10)

pi2go.setAllLEDs(2000, 2000, 2000)

pi2go.stop()

To write this program we are going to use the editor that comes with IDLE.

Select **File > New File** in IDLE.

Type the program above into this file (make sure you spell everything correctly).

You can save the file using the **File** menu. We suggest you create a folder for your Python programs.

You can execute your program by selecting **Run > Run Module**



Try this now. What happens?

If you are lucky this will have run smoothly. If not, you should have received an error message and will need to check your program for spelling errors.

**Exercise:** Modify your program so that it sets all the LEDs to 2000 first and then sets them back to 0 after the Pi2Go has stopped.

**Remember:** When you have finished working with your robot type:

**pi2go.cleanup()**



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