**Other Codes and Commands**:

1. **Creating Bash Shell Script ‘PiRun.sh’**:

The bash script will auto run the Python Script at start up. In the Raspberry Pi OS interface, opening a terminal window and enter the following to create a file named ‘PiRun.sh’ in the Desktop folder

Add the followings line in the text editor window:

1. **Enable execution permission to scripts**:

In the Raspberry Pi OS interface, opening a terminal window and enter the following lines to grant scripts execution permission

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1. **Enable script auto startup**:

In the Raspberry Pi OS interface, opening a terminal window and enter the following lines to open and edit the file ‘rc.local’.

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Add the followings line in the text editor window just before the line “Exit 0”:

Make sure to include the ampersand at the end so that the script will operate in a parallel processing sector with the boot process. Otherwise the Raspberry Pi will not complete the boot process and the Raspberry Pi may be locked in infinite loop.

1. **Enable static IP address**:

Connecting the Raspberry Pi into the router and powering both devices on. In the Raspberry Pi OS interface, opening a terminal window and enter the following lines.

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This command will show the IP address of the Raspberry Pi.

$3

This command will show the address of the router

This command will show the address of the DNS server, which is often the same as your gateway.

Note the addresses of all the commands and modify the file “dhcpcd.conf” by entering the following command:

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Add the followings line in the text editor.