To start a process or application automatically on Raspberry Pi at startup, use systemd service files.

Systemd service files can be found at **/lib/systemd/system/**

e.g. reboot_logging.service or soil_moisture.service

Step 1 - Create a Unit File

sudo nano /lib/systemd/system/sample.service

```
[Unit]
Description=My Sample Service
After=Network.target


[Service]
Type=idle
ExecStart =/usr/bin/python3 /home/pi/sample.py
User=root


[Install]
WantedBy=multi-user.target
```

The permission of the file needs to be set to 644:

sudo chmod 644 /lib/systemd/system/sample.service

Step 2 - Configure systemd

sudo systemctl daemon-reload

sudo systemctl enable sample.service

Reboot the machine or device and the custom service should run!

sudo reboot

Step 3 - Check Status

sudo systemctl status sample.service

Further sources: https://www.dexterindustries.com/howto/run-a-program-on-your-raspberry-pi-at-startup/