Octoprint

https://community.octoprint.org/t/setting-up-octoprint-on-a-raspberry-pi-running-raspbian-or-raspberry-pi-os/2337

```
cd ~
sudo apt update
sudo apt install python3-pip python3-dev python3-setuptools python3-venv git
libyaml-dev build-essential
mkdir OctoPrint && cd OctoPrint
python3 -m venv venv
source venv/bin/activate
```

In the virtual environment do:

```
pip install pip --upgrade
pip install octoprint
```

Add user to tty and dialout group to allow access to serial port:

```
sudo usermod -a -G tty $USER
sudo usermod -a -G dialout $USER

#reboot required for the new group to take effect. For temporary access:
sudo chown $USER /dev/ttyUSB0
sudo chmod a+rw /dev/ttyUSB0
```

Allow octoprint to restart itself, replace USER with username:

/etc/sudoers.d/octoprint

```
USER ALL=NOPASSWD: /usr/bin/systemctl start
octoprint,/usr/bin/systemctl stop octoprint,/usr/bin/systemctl restart
octoprint,/usr/sbin/service octoprint restart,/usr/sbin/service
octoprint stop,/usr/sbin/service octoprint stop
```

Start service:

```
~/OctoPrint/venv/bin/octoprint serve
```

Access it via http://localhost:5000

Autostart service:

```
wget
https://github.com/OctoPrint/OctoPrint/raw/master/scripts/octoprint.service
sudo mv octoprint.service /etc/systemd/system/octoprint.service
```

```
sudo sed -i 's/pi/'"$USER"'/g' /etc/systemd/system/octoprint.service
sudo systemctl enable octoprint.service
```

Update:

```
cd ~/OctoPrint
python3 -m venv venv
source venv/bin/activate
pip install pip --upgrade
pip install setuptools --upgrade
pip install octoprint --upgrade
```

Tuya Smart Plug

https://pypi.org/project/tinytuya/ https://plugins.octoprint.org/plugins/tuyasmartplug/

Nexus AI

Free local plugin to detect print failures from webcam images
https://plugins.octoprint.org/plugins/nexus_ai/

OctoLapse

Better TimeLapse, independent of the built in timelapse.

Auto config:
https://github.com/FormerLurker/Octolapse/wiki/V0.4---Automatic-Slicer-Configuration#if-you-are-using-cura-follow-these-steps

Go to Settings → Preferences and click Machine Settings of printer. Paste at top of Start G-code:

```
; Script based on an original created by tjjfvi (https://github.com/tjjfvi)
; An up-to-date version of the tjjfvi's original script can be found
; here:  https://csi.t6.fyi/
; Note - This script will only work in Cura V4.2 and above!
; --- Global Settings
; layer_height = {layer_height}
; smooth_spiralized_contours = {smooth_spiralized_contours}
; magic_mesh_surface_mode = {magic_mesh_surface_mode}
; machine_extruder_count = {machine_extruder_count}
; --- Single Extruder Settings
; speed_z_hop = {speed_z_hop}
; retraction_amount = {retraction_amount}
```

```
; retraction_hop = {retraction_hop}
; retraction_hop_enabled = {retraction_hop_enabled}
; retraction_enable = {retraction_enable}
; retraction_speed = {retraction_speed}
; retraction_retract_speed = {retraction_retract_speed}
; retraction_prime_speed = {retraction_prime_speed}
; speed_travel = {speed_travel}
```

Taking photo before or at first layer: https://github.com/FormerLurker/Octolapse/issues/677

Add to the bottom of the very end of the Start G-code:

```
@OCTOLAPSE TAKE-SNAPSHOT
SNAP
```

or

```
G4 P1
```

Add to very end of End G-Code:

```
G28 Z0 ;move Z to min endstops
```