

Table of Contents

1 Klipper Maintenance

- 1.1 Features
- 1.2 Get Started
- 1.3 Configuration
- 1.4 Usage

2 Installation

- 2.1 Install
- 2.2 Update

3 Configuration

- 3.1 Main Section
- 3.2 Maintenance Sections

4 G-Codes

- 4.1 MAINTAIN_STATUS
- 4.2 CHECK_MAINTENANCE
- 4.3 UPDATE_MAINTENANCE

1 Klipper Maintenance

Keep your 3D printer running smoothly



i Info

This is still a work in progress with partial testing.

1.1 Features

Klipper Maintenance supports the following features:

- Maintenance reminders in the terminal
- Maintenance reminders on the printer display
- Print time thresholds
- Filament thresholds
- Time thresholds

1.2 Get Started

Follow [Installation](#) to get started with Klipper Maintenance.

1.3 Configuration

After installing KlipperMaintenance, follow [Configuration](#) to configure KlipperMaintenance.

1.4 Usage

To use KlipperMaintenance, follow [G-Codes](#).

2 Installation

Follow this guide to install or update KlipperMaintenance.

2.1 Install

To install KlipperMaintenance, run in your terminal:

```
cd ~
git clone https://github.com/3DCoded/KlipperMaintenance
cd KlipperMaintenance
sh install.sh
sudo service klipper restart
```

Add to your `moonraker.conf` :

moonraker.conf

```
# KlipperMaintenance Update Manager
[update_manager KlipperMaintenance]
type: git_repo
path: ~/KlipperMaintenance
origin: https://github.com/3DCoded/KlipperMaintenance.git
primary_branch: main
is_system_service: False
install_script: install.sh
```

2.2 Update

To update KlipperMaintenance, update via Moonraker's update manager, then run in your terminal:

```
cd KlipperMaintenance
sh install.sh
sudo service klipper restart
```

3 Configuration

After installing KlipperMaintenance, follow this guide to configure it.

3.1 Main Section

First, a main `[maintain]` section must be configured. This has two main purposes:

1. Check periodically if maintenance needs to be done
2. Provide the `MAINTAIN_STATUS` command

To configure it, add to your `printer.cfg`:

printer.cfg

```
[maintain]
interval: 60 # optional, time (in seconds) between checking if maintenance needs to be done
(default is 60)
```

3.2 Maintenance Sections

Next, for each maintenance object, a `[maintain xxx]` config section should be configured. In this example, three maintenance objects will be configured (note the times here are purely for demonstration and are probably not ideal):

1. Lubricate XY rods (250 hours print time)
2. Replace air filter (500 hours time)
3. Clean and tighten extruder screws (700m filament)

For each `[maintain xxx]` section, there are four options that must be set:

- `label` text that will be displayed when referring to this maintenance object
- `trigger` type of event that triggers this maintenance. Currently three options:
 - `print_time` print time, in hours
 - `filament` extruded filament, in meters (330m is roughly 1kg of PLA)
 - `time` time, in hours
- `threshold` how often maintenance needs to be done. For `print_time` and `time`, this is in hours. For `filament`, this is in meters
- `message` message that will be displayed when maintenance needs to be done

Example:

printer.cfg

```
# Lubricate XY rods
[maintain xyrods]
label: XY smooth rods
trigger: print_time
threshold: 250
message: Lubricate XY smooth rods

# Replace air filter
[maintain airfilter]
label: Air filter
trigger: time
threshold: 500
message: Replace HEPA and charcoal filters

# Extruder maintenance
[maintain extruder]
label: Extruder maintenance
trigger: filament
threshold: 700
message: Clean extruder gears and tighten extruder bolts
```

4 G-Codes

KlipperMaintenance provides a few helper GCodes to manage your maintenance. Follow this guide to learn how to use them.

4.1 MAINTAIN_STATUS

Shows the current status of maintenance. Accepts no parameters. Using the example from [Configuration](#) and assuming air filter is expired, here is an example:

Input

```
MAINTAIN_STATUS
```

Output

```
XY smooth rods: 200h remaining
Maintenance "Air filter" Expired!
Replace HEPA and charcoal filters
Extruder maintenance: 400m remaining
```

4.2 CHECK_MAINTENANCE

Shows the current status of provided maintenance. Example:

Input

```
CHECK_MAINTENANCE NAME=xyrods
```

Output

```
Maintenance xyrods Status:
Next maintenance in 200h
Maintenance message: Lubricate XY smooth rods
```

4.3 UPDATE_MAINTENANCE

Marks the provided maintenance as complete. Example:

input

```
UPDATE_MAINTENANCE NAME=xyrods
```

This resets the maintenance timer for the `xyrods` maintenance.