Markforged Mark Two: Changing the Filament

Learn how to change the filament on a Markforged Mark Two.

Written By: Nico Willem Lagendyk

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Introduction

This guide will explain how to change the filament for the Markforged Mark Two printers if the filament has run out or you need to do a material change. **Switching material types will also necessitate a nozzle change.**

Sources:

- [Markforged Guide: Unload Plastic Desktop](#)
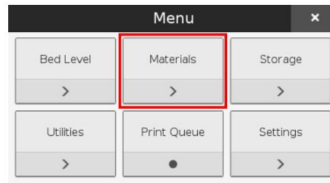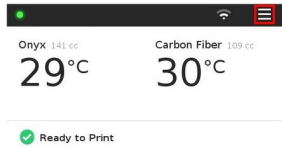- [Markforged Guide: Load Plastic Desktop](#)
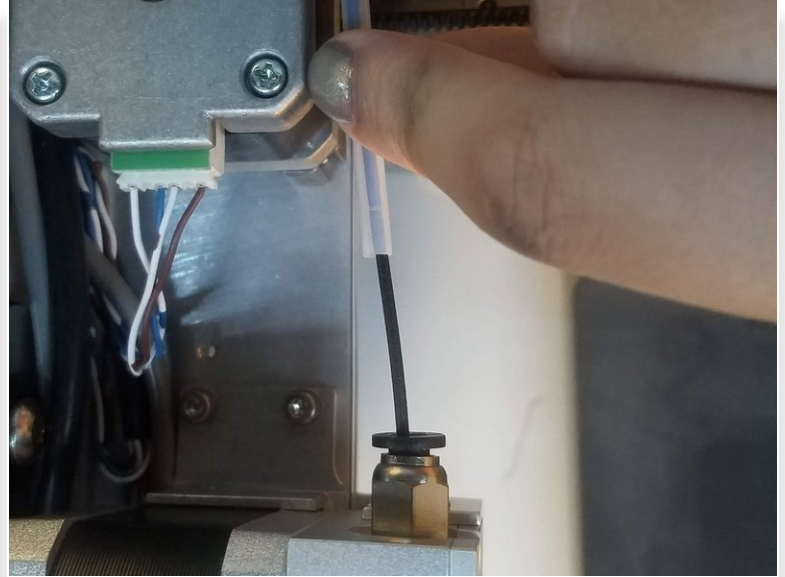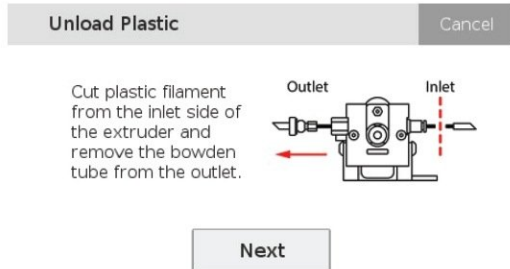
Pictures by: Ashley Recklein, Nico Lagendyk

TOOLS:

- Side Cutter (1)
- Tweezers (1)
- Scale (1)

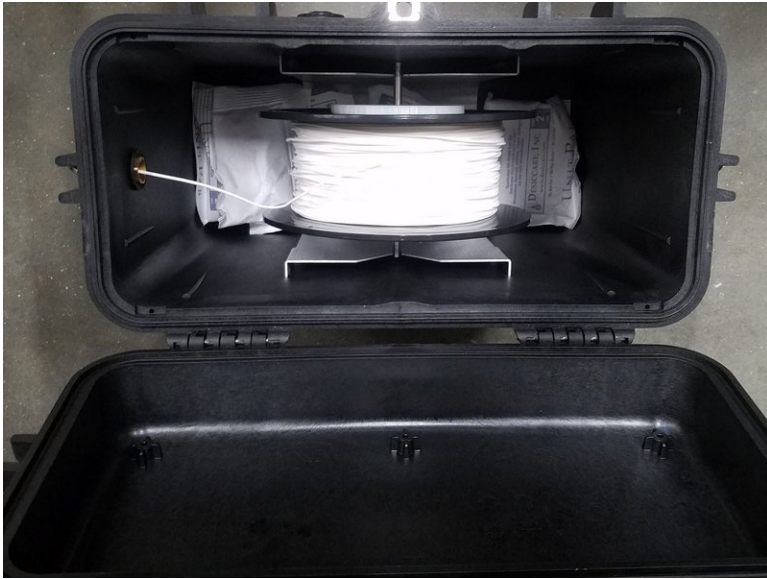This document was generated on 2022-06-27 11:39:51 PM (MST).

Step 1 — Unloading Plastic

- Select the **Menu** icon from the dashboard

- Select **Materials**

- Select **Unload Plastic**

- Click **Next** to continue

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Step 2 — Unloading Plastic II

- Push in on the black **push-to-connect fitting** at the back of the extruder

- Pull the **feed tube** from the **push-to-connect fitting**

- Expose the plastic material

- Use a pair of side cutters to cut the exposed plastic at a 45° angle

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Step 3 — Unloading Plastic III

- Open the **drybox**

- Wind the cut **plastic filament** back onto the spool

- Secure the **filament** in the **spool** using the through holes

- Close the **drybox**

- Unscrew and remove the **Bowden tube** from the front (outlet) of the extruder

- Press **Next** to begin expelling the cut filament

⚠ The filament can only be exposed to the air for about 15 minutes before it picks up too much moisture, so limit it's air exposure

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Step 4 — Unloading Plastic IV

- Take hold of the cut **plastic material** and help direct it free from the plastic extruder

- Press **Stop** when the plastic has been completely unloaded from the extruder

- Reinstall the **Bowden tube** and **feed tube** to the plastic extruder

- Press **Next**

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Step 5 — Material Switch

- At this point, check if you are switching from one type of material to another

⚠ It is highly recommended to keep seperate nozzles for each material (Onyx, White Nylon, etc.)

- If switching material types, please pause and follow the instructions on Nozzle Replacement

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Step 6 — Set up Plastic for Loading

⚠ This step is only relevant if you need to replace the **spool** in a **drybox**

- Open your **drybox** and remove the **spindle** from the inside

- Pull the magnetic **spindle cap** and **spindle body** apart

- Remove the *new* **spool** from its packaging
  - *Partial* **spools** need to be weighed using the scale

- Place the **spool** on the **spindle** and attach the **magnetic retention cap**

Step 7 — Set up Plastic for Loading II

- Place the **spindle** in the **drybox** such that the **plastic filament** exits from the top of the spool

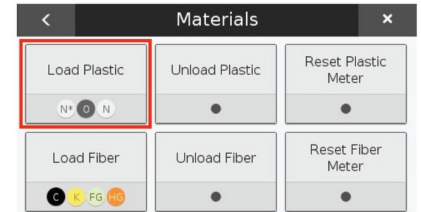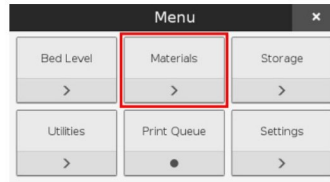ⓘ Always hold the plastic against the spool to prevent unwinding during the loading routine

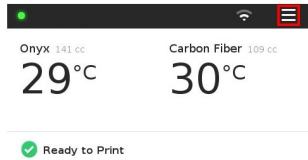This document was generated on 2022-06-27 11:39:51 PM (MST).

## Step 8 — Set up Plastic for Loading III
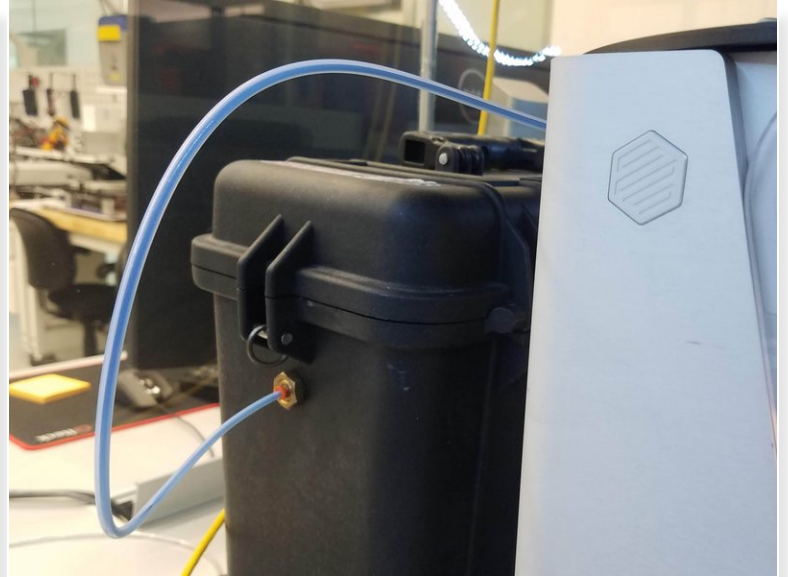
- Cut the **plastic filament** at a 45 degree angle

- Insert one end of the plastic **feed tube** into the adapter on the side of the drybox

- Feed the **plastic filament** all the way through the tube

- Close the **drybox** cover and press the latches closed until they click *twice* each

- Feed the plastic **feed tube** through the opening in the back of the printer

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Step 9 — Load Plastic

- Select **Menu** from the dashboard

- Select **Materials**

- Select **Load Plastic**

Step 10 — Load Plastic II
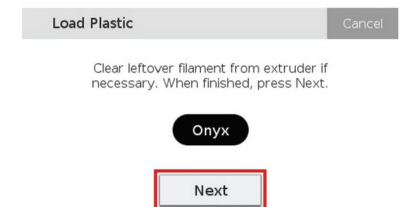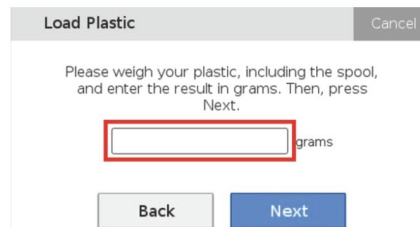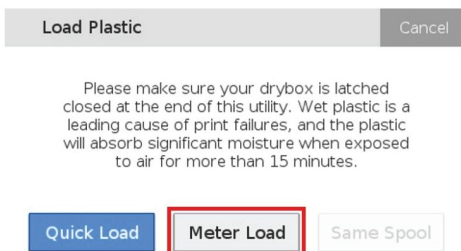
- Select **Meter Load**

- Select the *material* you are loading on the printer

- Select either a **full spool** or a **partial spool**

- Enter the *weight* measure before for a partial spool

- Then wait for the print head to warm up and press **Next**

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Step 11 — Load Plastic III
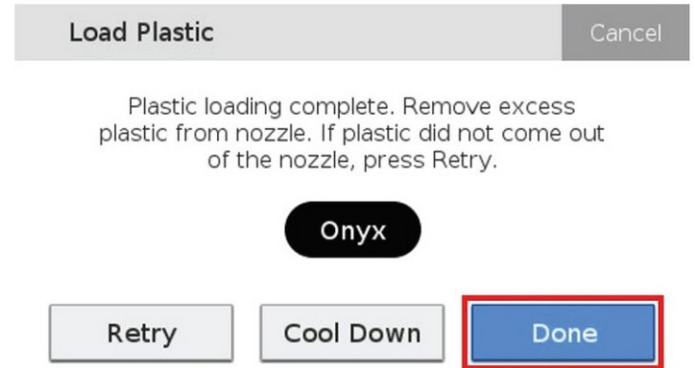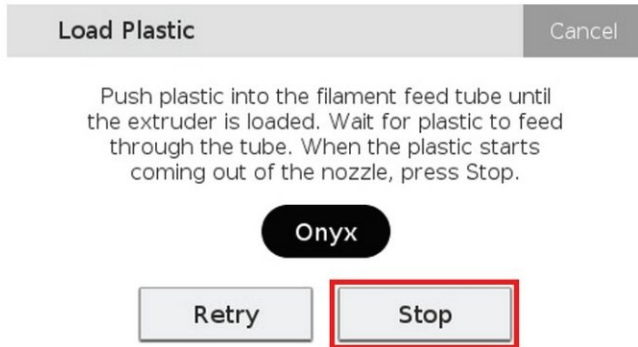
- Feed the **material** from the plastic **feed tube** into the **plastic extruder**

- Insert the **feed tube** into the extruder's **push-to-connect fitting**

- Press **Stop** once the material begins extruding from the nozzle
  - (i) Do not be alarmed by the plastic extruder *clicking* as material is extruding, this is normal and expected behavior

- Use tweezers to grab and remove any extruded material that gathers on the nozzle

- Press **Done** to exit the utility

- Press **Retry** to continue extruding material

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