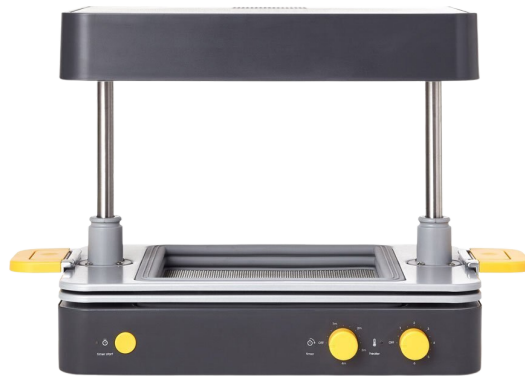
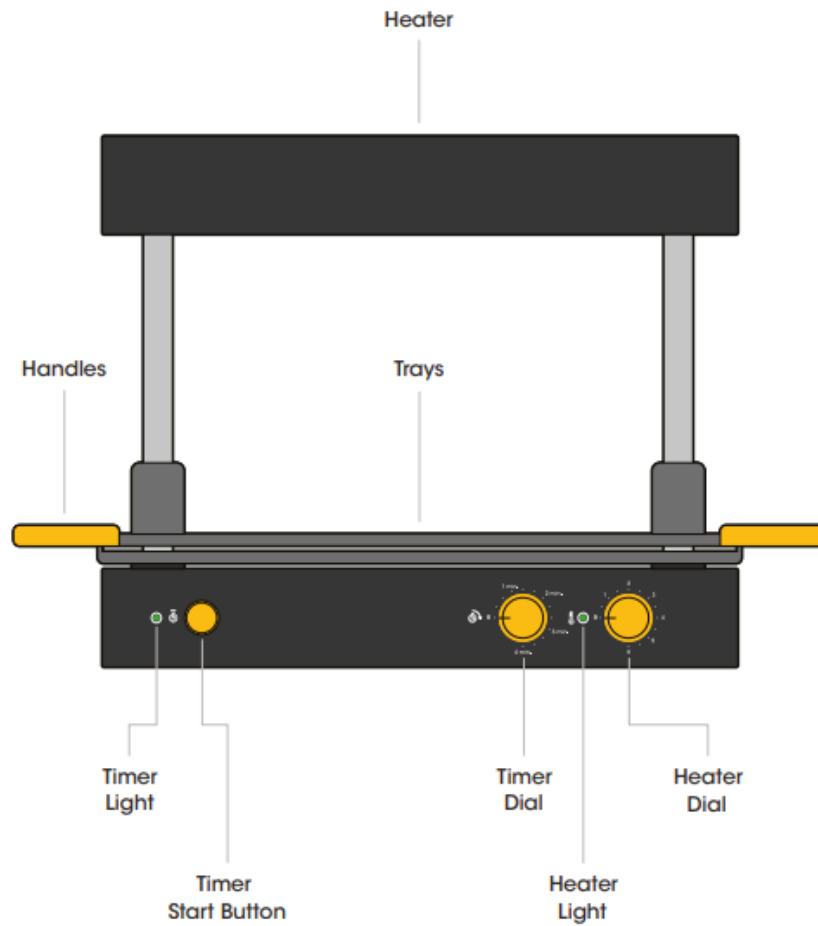


# MOLD MAKER



## Parts Overview



# MOLD MAKER



## Safety and Usage

Safety is very important when using the Formbox. The top of the Formbox is the heating element. It is very important to never touch the underside of the top portion, and also to never cover the holes on the top. The Formbox also has two moving trays. These trays require force to push up and down, and it is extremely important to keep fingers and hands out of the path of the trays. Only the handles should be gripped.

Mayku currently produces two types of molding sheets: cast and form. Cast sheets are used for molding, while form sheets are used for modeling. Cast sheets will work for the majority of projects, and are sold by the Library.

The Formbox does not use any software. To create a mold, you will need an object to mold (please see "What Can I Mold?" for more information), a cast sheet (sold by the Library), and the Formbox.

1. Plug in the Formbox. The vacuum should already be connected; please notify staff if the vacuum tube appears unattached.
2. Set the temperature and time. Both of these settings can be found on the sheet packaging, but may require adjustment. Mayku cast sheets are extremely sensitive to heat, so even the room temperature may affect the settings needed.
  - a. The heater dial (front right) controls the heating element, and is numbered 1 to 6. Typically, cast sheets require the 5 setting. The machine will turn on as soon as the dial is turned.
  - b. The time dial (left of the heater dial) controls the timer. You will push timer start after your cast sheet is in place, to keep track of when the sheet is hot enough to press. Typically, cast sheets require 1 minute.
3. The small light next to the heater dial will blink orange while heating. When the light turns green, you are ready to begin molding.

*Continued*

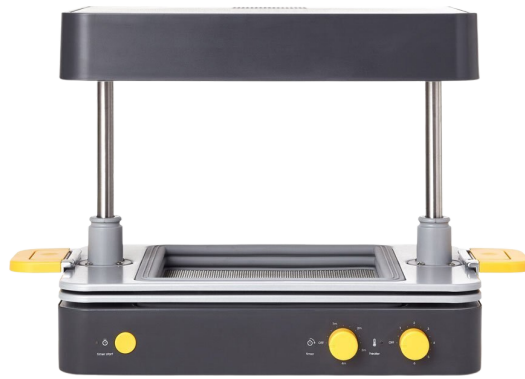
# MOLD MAKER



## Safety and Usage

4. Unlatch the tray handles, and push the top tray into the locks in the top of the Formbox. **This requires force; please ask a staff member if you need assistance.**
5. Peel the protective plastic off of your cast sheet.
6. Working quickly, place the cast sheet on the bottom tray, aligned with the rubber square edges.
7. Push the top tray down (this requires force) onto the bottom tray, and latch the handles together. This should sandwich the cast sheet.
8. Pull both trays (now locked together) into the top locks.
9. Still working quickly, press the Timer Start (front left). You'll hear a ticking noise. This is timing how long the cast sheet should stay near the heating element.
10. Place your object in the center of the vacuum plate.
11. Watch the cast sheet closely. You will see ripples, and after about 30 seconds, you will begin to see a bow in the center of the sheet. The sheet will likely be ready to press after 50 seconds. Do not let the bow get too large, or you may see webbing and/or thinning.
12. When the plastic has bowed slightly, you are ready to press. Again, using force, push both trays down over your object. The vacuum will turn on and shut off automatically.
13. After approximately 5-10 seconds, your mold should be ready to lift. Remove your object, and cut off excess plastic if desired.
14. When finished, **turn the heater dial to "Off" but DO NOT unplug the machine.** It will shut off automatically after it has cooled.

# MOLD MAKER

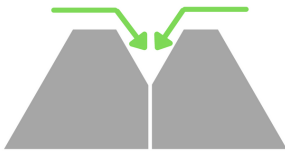


## What Can I Mold?

There are five criteria to consider when evaluating an object for molding.

### Air Flow

Objects with holes that allow air will work better, as the vacuum suction will be able to pull the plastic more tightly through around the object.



### Angles

Objects with straight angles may be more difficult to de-mold, and objects with very sharp angles may cause webbing. Slight outward angles on the sides and larger angles overall will de-mold more easily and avoid webbing.



### Melting Point

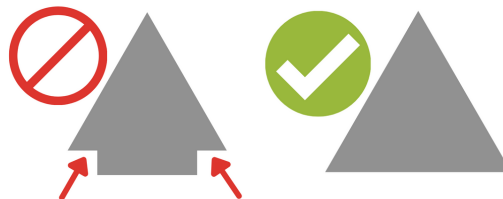
Will the object melt or stick under the heat of the machine? Most solid objects are fine, but objects like food, candy, and soap will melt and ruin the mold.

### Size

The width and depth limits are 5.9" x 5.9". While there is no set height limit, objects that are taller may tear or thin the plastic. Objects that are more wide than tall will mold better.

### Overhangs

Objects must be able to be removed from the mold, so objects with overhangs will not work. If you would like to mold an object with an overhang, such as a sphere, you may be able to cut it in half and create molds for each half.



# MOLD MAKER



## Quick Guide

### Quick Instructions

1. Plug in the Formbox.
2. Set the temperature and time settings according to your molding material (for Mayku Cast sheets, this is usually a 5 for heat and 1 minute for time).
3. When the light next to the heater dial is a solid green, the Formbox is fully heated.
4. Raise the top tray and lock it into the top. The trays require force to lock into place.
5. Working quickly, place a Cast sheet (film removed) on the rubber edges of the lower tray.
6. Push the top tray down (to sandwich the Cast sheet), and latch the handles together.
7. Raise both trays and lock into the top portion. Press Timer Start immediately.
8. Place object as close to center of vacuum plate as possible.
9. Carefully monitor the plastic. It will ripple at first, and should begin to droop.
10. When there is a droop in the plastic (typically between 40-60 seconds), grip the handles and press the trays down. This requires force; please ask a staff member if you need assistance.
11. The vacuum will turn on automatically.
12. Allow the mold to cool for about 10 seconds before unlatching the trays and removing the mold.
13. De-mold your object, and cut off extra plastic if desired.
14. **Turn the heater dial to "Off" but do not unplug the machine.** It will turn off automatically after it has cooled down.

### Safety and Reminders

- **Do not** allow your hands near the heating element.
- Only use the mold maker on its designated area. Do not attempt to move the mold maker.
- The mold maker requires force to move and lock the trays. Ask staff if you need assistance.
- Only use objects that are safe to mold, and only use Mayku sheets to create molds (sold by the Library).
- Always turn the heater dial to "Off" when finished, but **do not unplug** the machine. It will cool down and turn off automatically.

### Settings

All materials produced for use with the Formbox will specify time and temperature settings, but these settings are very dependent on room temperature. Plastic sheets should be closely monitored while heating, and pressed as soon as there is a droop to avoid webbing.

The Library sells Mayku Cast sheets, which are the most popular mold making material. Cast sheets generally require a 5 setting for heat and 1 minute for time, but may need to be adjusted.