

# MODULE 1:

# HEAT PRESS



**From soft plastic waste to soft  
plastic sheets**

# INTRODUCTION

## LEARNING OUTCOME

In this module you will learn how to create fashionable sheets from plastic waste using the heat press machine.



## HOW WILL YOU GET THERE ?



Understand the components and mechanisms of the heat press.



Stay safe! Read the safety precautions.



Collect the materials you need to make your unique design.



Follow a step-by-step guide to use the heat press.



Learn how to maintain the heat press.



If you have questions, check the FAQs section for answers.

# HEAT PRESS INFORMATION

## DESCRIPTION

The heat press is a machine that allows you to turn soft plastics into creative soft plastic sheets. These sheets can then be used to create fashionable products, such as bags, wallets, or bookmarks.

## PLASTIC TYPE

The following plastic types can be used with the heat press:



Low Density Polyethylene

## MACHINE PARTS



Upper platen



Lower platen



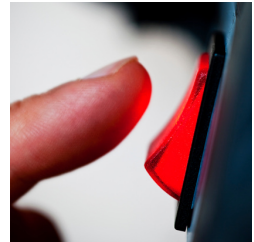
Handle



Power switches

# SAFETY PRECAUTIONS

- When the machine is plugged in, do not touch the top and bottom platens with your bare hands.
- Use heat resistant gloves.
- Make sure that electrical components and cables are clear from the platens, to avoid fire hazards.
- Unplug or switch off the machine when it is no longer in use.
- Do not leave the machine running without supervision.
- Be careful with the sharp objects, such as scissors and cutting knives.

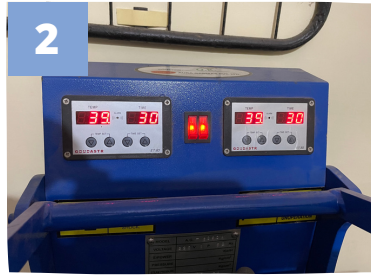
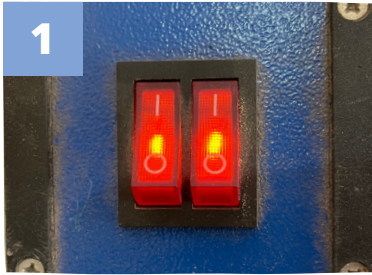


# MATERIAL CHECKLIST

Clean and dry plastics	<input type="checkbox"/>
2-3x Teflon cloths	<input type="checkbox"/>
Scissors or cutting knives	<input type="checkbox"/>
Safety gloves	<input type="checkbox"/>
Metal ruler	<input type="checkbox"/>
Cleaning wipes/cloth	<input type="checkbox"/>

# STEP-BY-STEP GUIDE

- 1** Make sure the machine is plugged in to electric socket and turn it on using the power switches.
- 2** Set temperature at 170°F (76.7°C).
- 3** Select the plastic you want to use for your design.
- 4** Dust off the plastic using a dry cloth.



- 5** Cut the plastic using the scissors or cutting knives into a piece that fit into the machine.
- 6** Use at least 2 layers of plastic. It can be of the same or different color.
- 7** Wait until the temperature reaches 170°F (76.7°C).
- 8** When the display shows the right temperature, the machine is ready to be used.





- 9** Place one Teflon cloth on the lower platen of the machine.
- 10** Roll another Teflon cloth around the metal ruler.
- 11** Place the plastic sheet on top of the Teflon into the machine.



- 12** Unroll the Teflon cloth on the plastic sheet by slowly turning the metal ruler.
- 13** Flatten the surface using the metal ruler.
- 14** Gently remove metal ruler from the machine.
- 15** Close the machine pulling the handle down and wait for the timer to beep after 30 seconds.
- 16** Open the machine using the handle and wait 5-10 seconds for the Teflon covering the sheet to cool down.



**17** Remove the Teflon cloths from the heat press machine and place it on a flat surface (like a table).

**18** Place your hand applying pressure on the bottom Teflon cloth, while gently removing the top Teflon cloth using your other hand. Repeat this process to remove the other Teflon cloth from the plastic sheet.

**19** Now you have a plastic sheet base in which you can make your design.

**20** Select and dust off the coloured plastics that you will use in your design.



**21** Cut the plastic in shapes that you want in your design.

**22** Place the plastic pieces on the plastic sheet. Get creative!

**23** Make your design on the plastic sheet. Is it complete?



**24** Repeat steps from 9 to 18.

**25** Now you have your first plastic sheet design.

**26** Do you want to add more layers or patterns in your design? You can!

**27** Repeat the process to create more layers. Recommendation: maximum having 5 layers.

**28** Get creative making more sheets with different designs!





# MACHINE MAINTENANCE

## 1. Dust

- Keep working area clean and dust-free.
- Keep electrical components clean and dust-free.

## 2. Lubrication

- Lubricate all wear points (pistons and rods) with lithium grease, then wipe with cloth.
- Lubricate all wear points at least twice a year.

## 3. Cords

- Use cords that came with your heat press or ones that can sustain the necessary voltage.
- Do not place cords onto or near hot surfaces to avoid fire hazards.

## 4. Upper Platen

- Use Teflon sheet (cloth) during heat application.
- Use a damp, soft cloth to wipe platen, using iron cleaner, alcohol, or mineral spirits.

## 5. Lower Platen

- Use Teflon sheet (cloth) during heat application.
- If the silicon or Teflon sheet begin deteriorating, make sure to replace them.

## 6. Temperature & Pressure Tests

- Run temperature tests using the thermo-tel stickers provided in the machine test kit, if irregularities occur in the temperature indicator.
- Pressure: place pieces of paper on every corner, pull the lever down. If paper can be removed easily, tighten the pressure so it becomes harder to remove the paper. Once the paper becomes hard to remove, the sheet press is applying the right pressure.

# FAQ