

THE POSSIBLE ZONE



Hammers

THIS GUIDE IS NOT A
SUBSTITUTE FOR TRAINING OR
FOR THE USER MANUAL. THIS
GUIDE SERVES AS A REFRESHER
ONLY. USERS MUST BE
CERTIFIED TO USE EQUIPMENT
INDEPENDENTLY.



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THIS TOOL IS PRIMARILY FOR

- Driving nails
- Assembling press-fit projects

MATERIALS

APPROVED:

- + Wood
- + Aluminum
- + Steel
- + Brass

NOT APPROVED:

- + Glass
- + Acrylic

This 3 pager documentation is a reminder of the following hammer basics:

- Safety
- Setup
- Hammer Practices

For more information on hammers and hammering applications, ask a STEAM Team member for assistance.



Protection

- Before getting started, make sure to wear safety goggles when using a hammer. This will protect your eyes from any debris that may come from hammer impacts.
- Be cautious of hand placement on your workpiece. When possible, keep your non-dominant hand away from the impact zone of your hammer.

Choosing the Correct Hammer Type

Part of safe practice when hammering is choosing the right type of hammer. Below are the different hammers in the Fab Lab and their applications:

Claw Hammer

The classic hammer. Best used for driving nails and removing them. Not suited for hammering soft materials like wood as the steel face will dent them.



Mallet

The mallet has a head made of a large rubber cylinder. Best used with soft materials where precision is not needed. The rubber head will apply force evenly without denting, at the cost of a weaker strike than the claw or deadblow hammers.



Deadblow Hammer

This hammer has a hollow head filled with sand, which minimizes rebound and allows almost all of the force of your swing to be translated to the material. The plastic face is a similar size to the mallet, but can still dent softer materials.



Mini Mallet

Similar to the mallet, this mini version has two heads made of a harder and softer rubber which can be used for different materials.



SET UP

- Put on safety goggles.
- Make sure your workspace is clear and there is space to plant your feet and swing your arms freely without hitting anyone or anything.
- Position your workpiece on a surface so that your target you will be hammering is a little below hip height to ensure your hammer will not strike at an angle.



HOW TO GRIP THE HAMMER

- Grip the hammer near the base of the handle with your dominant hand. Do not choke up on the handle.



Correct Grip



Incorrect Grips

SETTING A NAIL

- When hammering a nail, first grasp the nail in your finger and thumb with your non-dominant hand and position it upright on your material.
- Next, gently tap the head of the nail until it is far enough into your material to stand upright on its own. This motion should come from the wrist and not the arm.

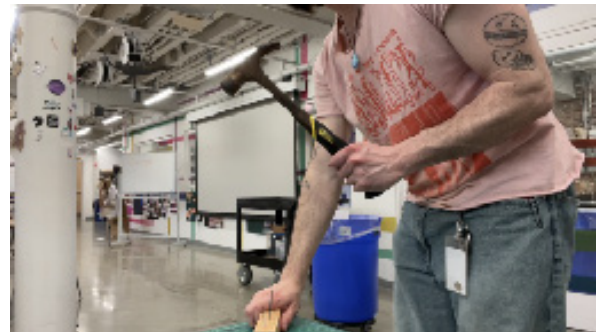
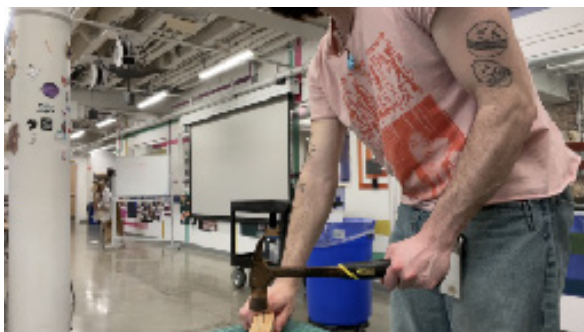


Note: Nail-holders are available if you're scared of hurting your fingers



HOW TO SWING YOUR HAMMER

- Start with your non-dominant hand securing your material, and resting the face of the hammer on your target.
- Lift up the hammer by hinging at the elbow, coming up no higher than your shoulder.
- The further from your material your hammer travels, the less accurate you will be.
- Swing down by hinging at the elbow again. If you are unsure how much force is needed, start by just using the weight of the hammer, and increase the force with each swing until your desired result is achieved.





SET UP CONFIRMATION

USE THE FOLLOWING CHECK LIST TO INSURE THAT YOU HAVE SET UP THE MACHINE SAFELY AND PROPERLY.

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SELF CHECK

- Wear safety glasses
- Make sure your workspace is clear of people and objects
- Make sure your workpiece is flat on a table around your standing hip height
- Select the appropriate hammer type

CLEAN UP

- Return hammers and nail holders to their drawer in the shop
- Return unused nails to their box
- Return safety goggles to their hook