Refresher Guide: Small Tools

This document contains best practices and safety tips for handheld tools, excluding the circular saw and jigsaw. Given the breadth of tools available, this document is general. For questions about a specific tool, contact a mentor.

For information contact: mw-handtools@mit.edu

Despite being categorized as “small” tools, there are many sharp and potentially dangerous items within this category. For your safety, ALWAYS practice proper workholding and ALWAYS ask for help if you are unfamiliar with a tool.

General best practices:

● Keep power tools unplugged and/or locked when not directly in use.
● Remove batteries and put them either on a charger or in the battery storage area when not in use.
● Keep as few tools, bits, and blades out as possible.
● Remember that bits and blades are sharp, even when not attached to a tool.
● Remember that bits and blades removed from a tool are hot.
● Do not use tools in a way they were not intended (e.g. calipers are not scribes).

Notes on chisels:

● Pieces must be clamped down. Under no circumstances are you allowed to hold a piece while chiseling. Keep both hands BEHIND the blade at all times.
● Ensure that chisels are sharp before using.

Notes on drills:

● There are three types of “drills”, with different uses:

   Cordless drill
   Combo drill / hammerdrill.
   Impact driver

● Use slower speeds for large bits and faster speeds for small bits, for a given material.
● Only change the torque settings when the tool is not spinning.
● The impact driver is not for drilling. Do not force drill bits into the quick-change chuck.
● Use the handle and ear protection when using the hammerdrill mode. Do not use the hammerdrill mode for standard drilling (wood, metal).