



FabLab Tool Training Rubric: Power Drill



Personal Protective Equipment

- Standard shop personal protective equipment (safety glasses, no long hair, no flowing clothes, etc.) are required

Safe Operation

- Always drill into workpieces that are clamped or fixed in place
- Keep both hands on the drill, and neither hand on or behind the workpiece
- Install bits into the drill by turning the chuck barrel counterclockwise (looking at the drill from the front) to open the jaws, and clockwise to tighten the jaws. Tighten the chuck enough to feel it click once. **DO NOT** open or close the chuck by running the drill and holding the chuck in your handle
- Forward rotation is accomplished with the reverse switch to the left; reverse rotation is accomplished with the reverse switch to the right
- Clutch settings should be adjusted (higher number meaning higher allowable torque) based on the torque required to drive screws without stripping them
- Drill mode should be used for drilling, screw mode for light-duty screwdriving, and hammer mode for heavy screwdriving and masonry
- Speeds should be selected appropriately to the task being accomplished
 - “1” should be used for large ($>1/2$ ”) bits, drilling into steel, or driving large screws
 - “2” should be used for medium sized bits ($1/4$ ” to $1/2$ ”) drilling into wood or metal, and for driving most screws
 - “3” should be used for drilling with small bits ($<1/4$ ”) into wood
- Continue running drill while backing out of a drilled hole
- **DO NOT** exert side pressure on drill bits to widen holes
- Use appropriate cutting fluids while drilling into metals

Common Maintenance Operations

- Store the drill without the battery. Plug in battery into charger when done.

Allowable Materials

- No flammable materials, such as Magnesium.

: UV@UV`Hcc`HfU]b]b[`HYgh
Dck Yf`8f]`

Gi XYbHgBUa Y` _____

=bgfi WcfHgBUa Y` _____

8UHyZHYgh` ____/____/____

Dc]bhici hh YZc`ck]b[`hcc`ZUhi fYg`

[`QCb#CZZGk]HW`

[`Q7`i HW`GYWmf`

[`Q8f]`HmLYGYWmf`

[`QGdYXGYWmf`

[`QF`y YfGYGk]HW`

[`Q6Uhm`

DYfgcbU DfchWlj Y9ei]da Ybh`

GUZYCdYU]cb.`

% 8Ya cbgdfUYgUYWi W]b[`cZUj Uf]YmrcZX]ZZfYbhV]hg

&" 8Ya cbgdfUYgUYXF]`]b[`dfcWXi fYg]bhc`UHYgid]YWZj Yf]Z]b[`UbXdcg]hcb

' " 8Ya cbgdfUYgYh]b[`gdYXgzWi W`gYh]b[`gzUbXXF]`hmlYgZcf`Ubi a VYf`cZX]ZZfYbh
XF]`]b[`UbXXF]j]b[`cdYU]cbg]b Uj Uf]YmrcZa UYf]Ug

Common Maintenance:

1. Demonstrate putting the drill away and the battery on the charger

Allowable Materials:

Passed: YES / NO

Instructor's

Signature: _____