

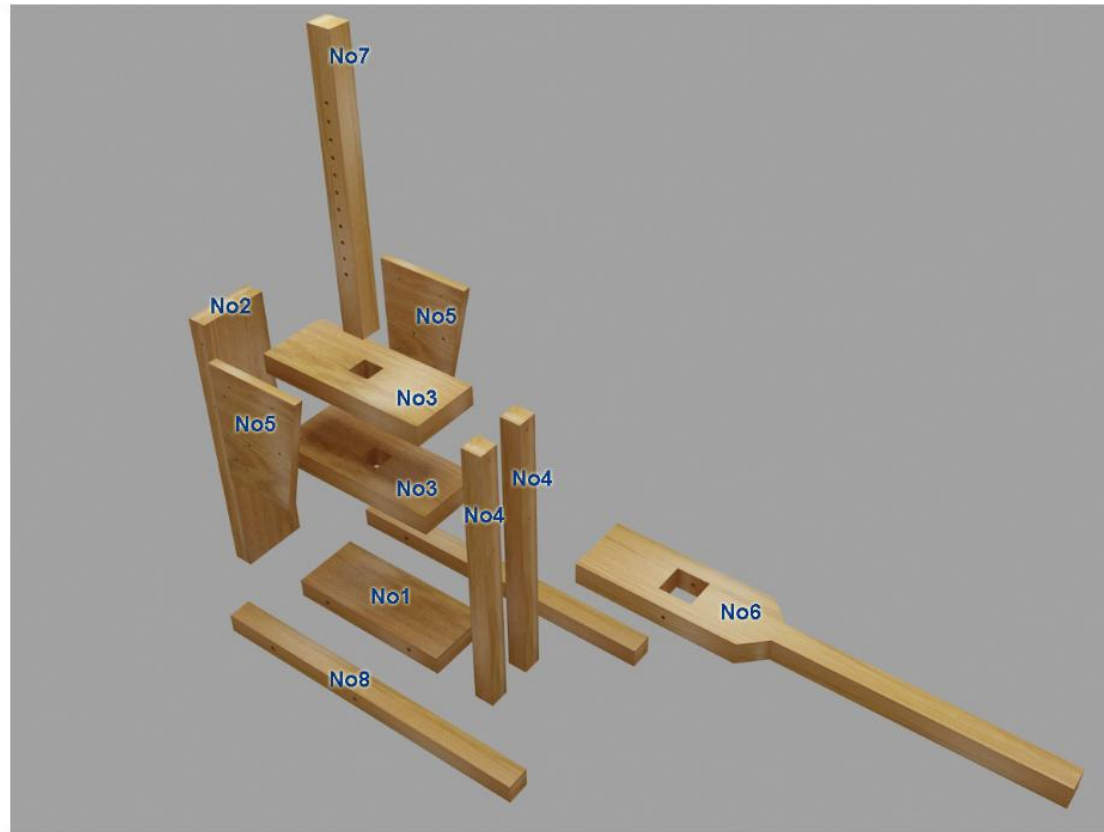
DIY the Sturdypress “original “

When I decided to “make some cheese” about 7 years ago, I could find no reasonably priced press that would fulfill all my requirements, so I designed my own. It worked so well that I made two more and put them on Ebay. Both were bought by the same person. That was the start of sturdypress.com

Making your own press has been described as a “rite of passage” for new cheese makers.

ENJOY

Overview

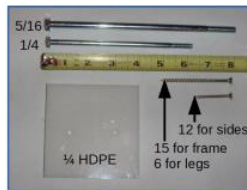


The wood



Since the press design is very robust, you can use any wood, hard or soft. Dried wood is best. Less expensive grades work well since you can cut around most imperfections. The thickness of your lumber can be from 1 inch to 2 inches. A 1 inch thick lever arm is the very minimum. A 2 x 6 (1 ½ x 5 ½) works well.

Fasteners



The 3 inch screws are for the frame. The 1 5/8 screws are for the plywood sides. The 5/16 bolt is for the MA selector pin. The ¼ bolt is for the lever arm/plunger connection. The ¼ HDPE is for the lever slide plate. It is mounted on top of the lever arm with 2 small screws.

The tools



Having a complete wood shop makes things easy, but you really only need these two specialty bits , an electric drill and a hand saw. 80 grit and 120 grit sandpaper can change your press from rustic to a “thing of beauty”.



THE PLUNGER

Plastic or wood

The plunger should not touch the whey or curds as it could possibly cause contamination. If you are “pressing in the whey” a plastic bag covering the bottom of the plunger can isolate the plunger from your cheese.

Using a piece of 1 inch PVC water pipe is a good choice and only requires a hand drill. 1 inch PVC pipe has an outside diameter of $1 \frac{5}{16}$ inch. A $1 \frac{3}{8}$ diameter dowel will also work. Both of these fit loosely in a $1 \frac{1}{2}$ hole, but as the lever goes from top to bottom during pressing the plunger is pushed to the back of the $1 \frac{1}{2}$ inch guide holes thus keeping the plunger vertical (and the top of your cheese level).

The round plungers will work in a round or square guide hole, The square plunger...why am I even saying this.

The plunger is $18 \frac{1}{2}$ inches long and the spacing between the 1.4 inch holes can be as little as $\frac{3}{4}$ inch. On the production sturdy press they are 1 inch apart.

DRILLING THE PLUNGER



Use two of the 1 ½ inch square frame pieces clamped on each side of the plunger. They should stay flat on the table. Mark a line down the center of the plunger. Mark the 1 inch spacing of the holes. Now with a small (less than 1/8 in) bit, drill a hole in the plunger at each mark. These will guide the drill bit while drilling the pilot holes.

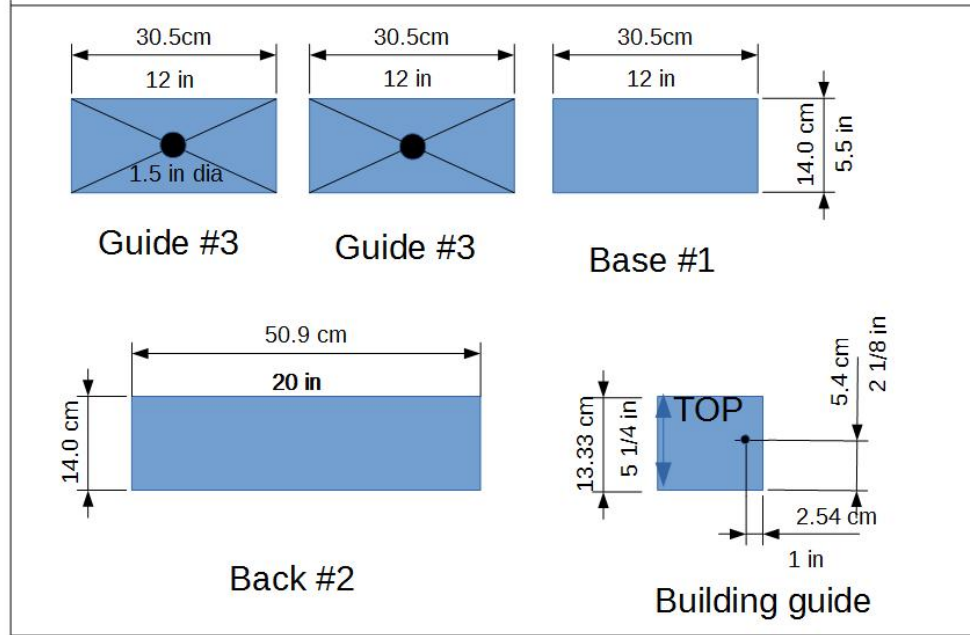


The little dark hardwood block is a guide to keep the drill bit vertical. Insert a 1/8 inch drill bit in the guide and get it started in the small pilot Hole. Now push the guide block down on the two clamped on pieces to keep the drill bit vertical. Drill the 1/8 pilot hole through both sides of the plunger. You now have the plunger drilled with centered and vertical 1/8 inch guide Holes.

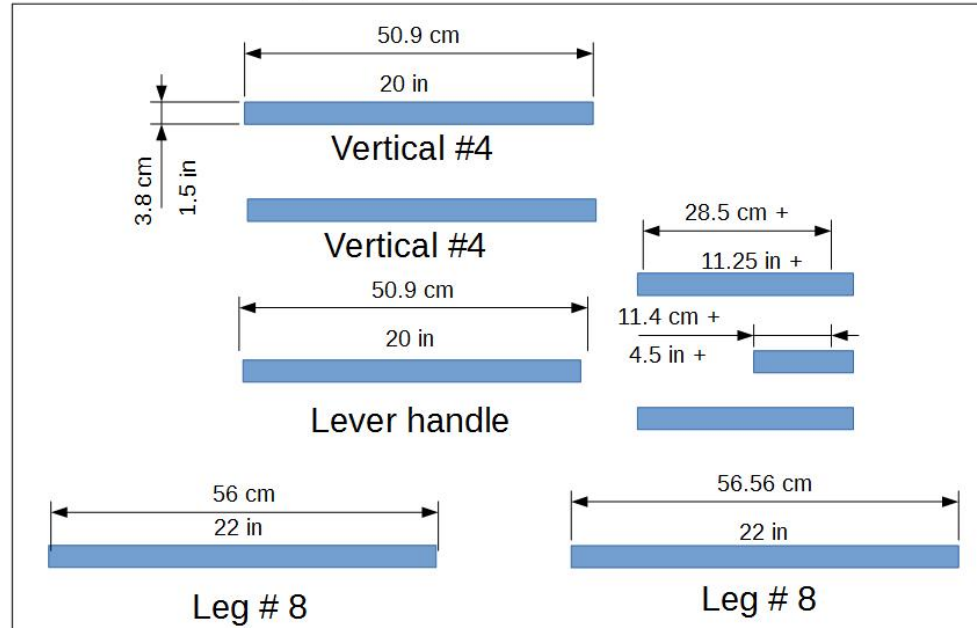


If you drill these holes to their final size in two steps the holes will be much cleaner and have fewer burs. With a ¼ in bit, drill each hole on one side (not all the way through), and now on the other side. Next push the drill bit all the way through and check if the hole is vertical to the plunger. If it is off a little, push the drill back and forth with a little side motion to correct the Problem. Now drill each hole all the way through With a bit 1/16 larger (5/16 inch or 8 mm works).

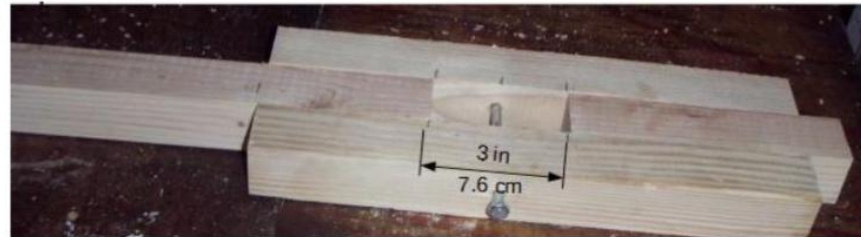
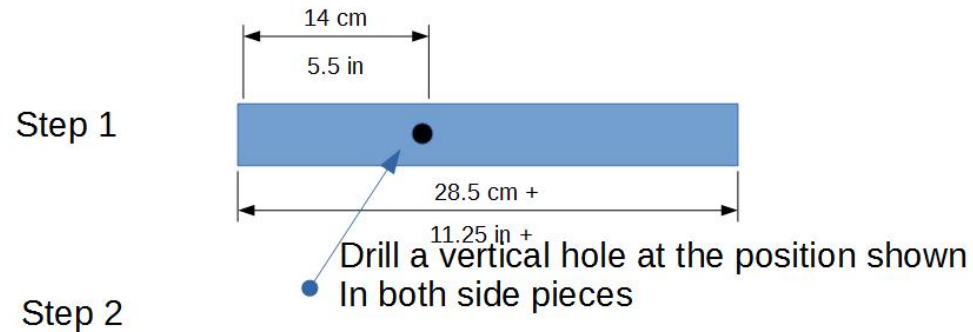
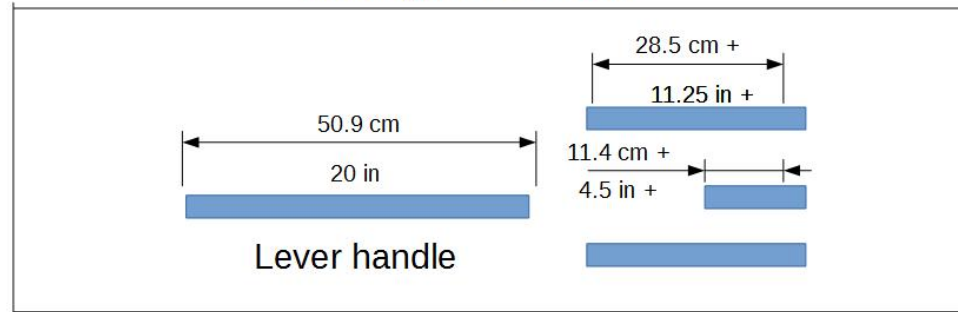
1.5 in x 5.5 in x 6 feet



2 piece 1.5 in x 1.5 in x 6 feet

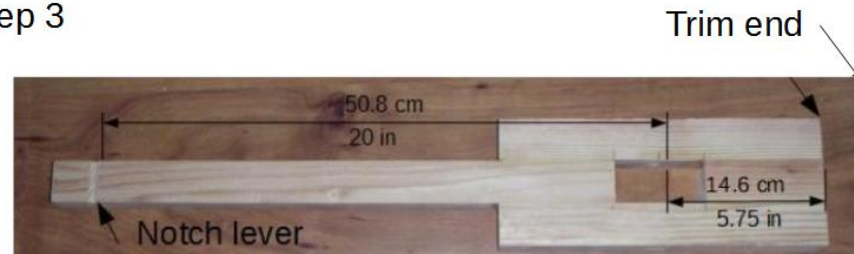


Making the lever arm



Assemble pieces to check alignment Then glue and clamp in position using $\frac{1}{4}$ in (6mm) bolt / washer / nut.

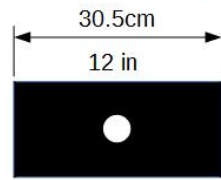
Step 3



Cut the end and the notch

Making the horizontal guides

You can make the guide opening either round (requires a hole saw)
or square (requires a table saw).

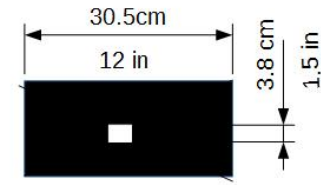


Guide #3



Drill 1 ½ inch hole in the center of the guide
Using a hole saw. A 1/8 inch pilot hole will
Allow you to drill from both sides.

or

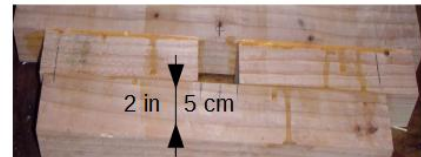


Guide #3

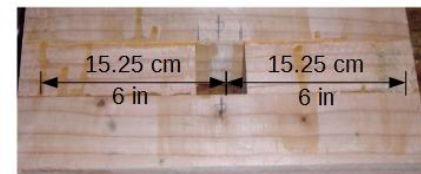


The total width should be the same
as the back and the base which is
5.5 inches(14 cm), so each of the
two side pieces will then be 2 inches (5 cm).

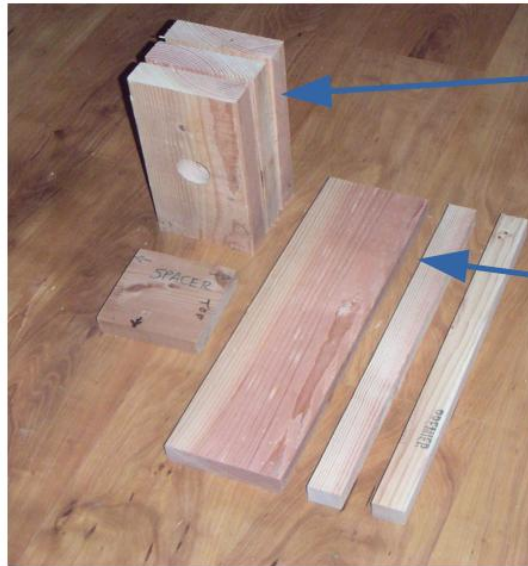
$$2 \text{ in} + 2 \text{ in} + 1/2 \text{ in} = 5.5 \text{ in.}$$



After the glue dries, trim ends



FRAME ASSEMBLY



The length and width
Of these three parts
Should be identical.

The length of the 2
braces and the back
Should be identical.
These three parts can
Be made longer to
Make a taller press.

NOW IS THE TIME TO
DO MOST OF THE
SANDING



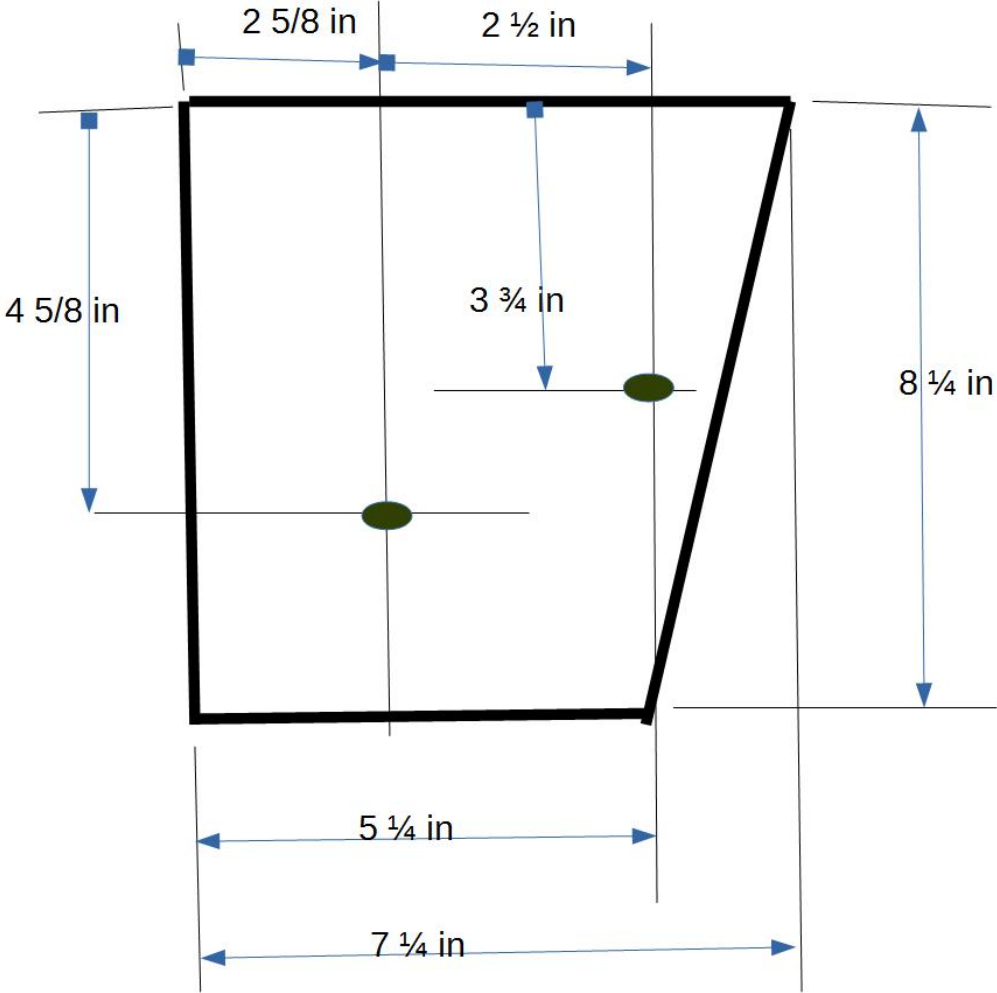
Position the horizontal
Plunger guides using
The spacing jig. Mark
the position of the
nine 3 inch screws in
the back. Drill and
Assemble. Slide the jig
to the front, mark the
position of the six 3 inch
Screws. Drill and
Assemble. This whole
assembly will be much
easier if you clamp all
pieces in position before
drilling

The completed frame, NO planing, NO sanding
RUSTIC.... BUT 100 % functional.

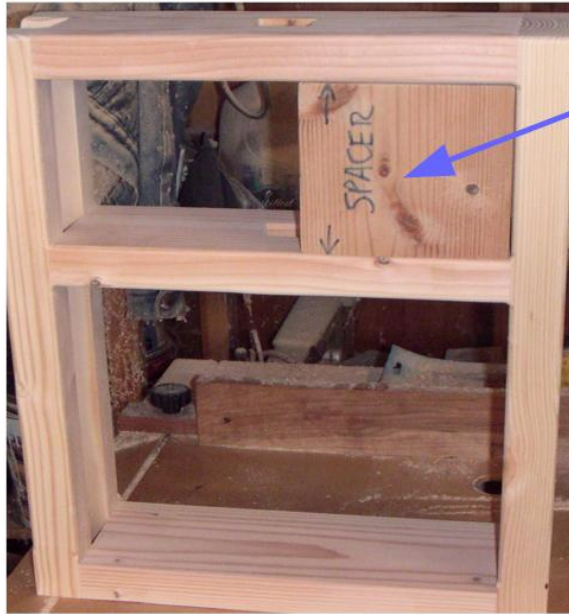


PIN GUIDE

Made from plywood any thickness 1/2 in to 1 in.



ASSEMBLE PIN GUIDE

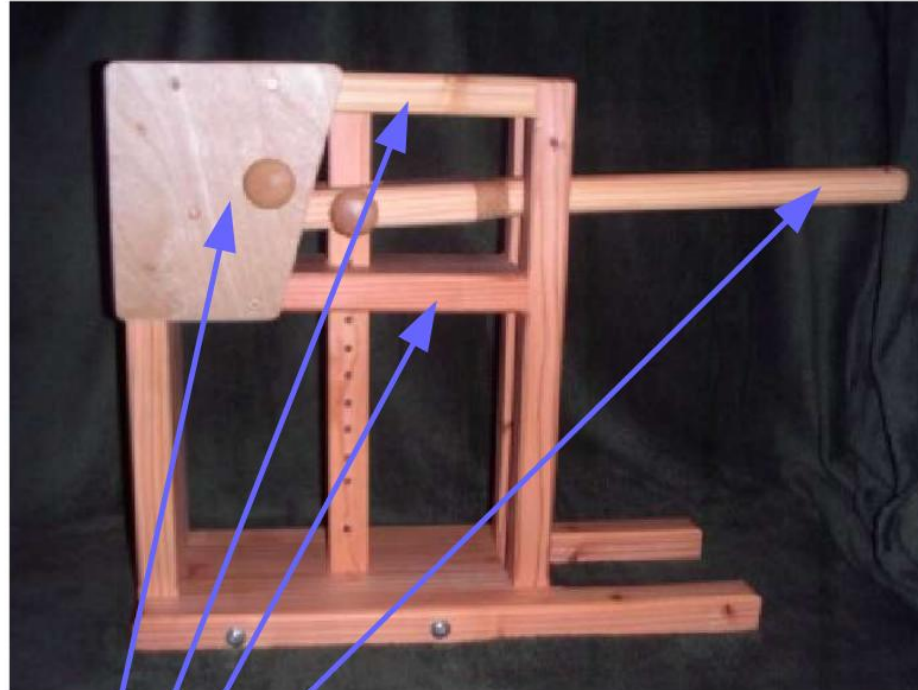


Place pin building guide in place with TOP at the Top.



Place the pin guides on both sides, using the 5/16 hole in the jig and a 5/16 bolt to get the correct position. Level the tops and clamp. Put Two 1 5/8 screws in each side. Remove the bolt and the jig and insert the remaining screws..

USING THE CALCULATOR



If you use the length dimensions for the lever arm, for the 2 plunger guides, and for the pin holes in the two plywood Sides, and if you mount the plywood sides using the 5/16 Hole in the building guide jig, then the press will be functionally the same as a production sturdypress and the pin A / pin B buttons will enter the correct values for MA and tare weight in the calculator.

Changing the height of the press or the length of the legs or the thickness of the lumber you start with should have no significant effect on the MA or tare weight.



I put water in the garbage can 5 gallons at a time. Lots of creaking noises! At 15 gallons (pressing weight about 1100 lbs) more creaky noises.



At 20 gallons (170 lbs on the lever arm and about 1500 lbs pressing weight) the lever arm was bowed but the failure point was the 5/16 pin in the 9X pin position.

**FAILURE AT 1500 LBS PRESSING WEIGHT.
THE 5/16 BOLT IS A307 SOFT STEEL.
THE PLUNGER IS WOOD.
PVC PIPE PLUNGER NOT TESTED.**

COMING PAGES

How long should the legs be

Plunger...plastic or wood, square or round?

What are the changes (and why) from the production sturdypress
“original”

Why do you need a sliding lever arm, and how to do it?

How does the pressing weight change as the lever arm moves
through its motion

Tip..... How to drill a vertical hole with a hand electric drill(no drill
press)