FABULOUS FOAMCORE

Mat's
- X-ACTO knife (NOT mat knife)
- Metal ruler with cork or masking tape on backside (reduces slipping)
- Map pins or long push pins
- Cutting surface: back of Newsprint pad works well

Cutting & Safety
- Ruler guides blade (press blade down, lightly grasp ruler)
- Hold edge of ruler
  - furthest distance from blade
  - good resistance to side force from blade
- Use all of blade, not just tip
- Blades go dull extremely quickly
  - gouges/rips instead of cuts
    - hands heal quicker if injured by sharp blade

THINK! “Where will blade go if it slips?”
- NEVER KNEEL ON RULER TO HOLD IT WHILE CUTTING:
  - knife cuts knee

Elmer's vs. Hot Melt
- Elmer's easy to control
- Hot Melt messy (whiskers)
- Elmer's needs to soak
- Hot Melt dries in a couple seconds
- Elmer's is minimal thickness (tan)
- Hot Melt thick
- Elmer's thermo safe
- Hot Melt hot glue burns
**START OUT SQUARE!!!**

1. Cut one edge.
2. Measure over 2 points and make a parallel cut.
3. Pick top/bottom edge and cut 90° to it with a large triangle.
4. Use the same edge and cut other side.

**JOINTS:**

- Sharp
- Slight radius
- Large radius
- Lap joint

**JOINTS:**

1. Cut down to, but not through the 2nd sheet of paper.
2. Bend sheet back on itself.
3. With the butt of an X-Acto, force a furrow in the foam/cr, along the cut line, using the ruler as a guide.
   - Take several passes—don't force it in one pass.
4. The furrow should look like this. Note that the furrow is the depth of the frame.
5. Use the edge of the X-Acto to break furrow edges into 45° angles.
**Joints: Lap Joint**

1. **Mark off foam thickness by using foam-core scrap.**

2. **Flick off 3/16" piece of foam and paper. A quick flicking action should only remove excess foam and some paper. In test, if foam remains, clean off.**

Rung finger along joint to set joint.

**Joints: Lap Joint with Rubber Cement Tape**

1. **Lay down rubber cement tape along joint edge.**

2. **Cut through adhesive but not through tape backing; remove backing to leave adhesive on joint.**

3. **Rub down joint.**

Edge overlapping may require trimming.
**Joints: Slight Radius**

1. Cut down to but not through 2nd side of paper. Do not bend sheet back on itself.

2. Score furrow with butt of X-Acto but carefully control the depth of the furrow.

3. The depth of this furrow will determine the character of the radius. Deeper = sharper. Shallower = softer.

4. Carefully break edges to 45° angles. Make sure you don't force the furrow deeper. If you don't break these edges, the radius will distort.

5. Run a bead of hot glue in completed furrow.

6. For a strong joint, run foam-cock scrap up folded sheet to complete a hot glue fillet.

**Joints: Larger Radius**

1. Cut 1/8 inch strips through first layer of paper and about 1/2 way through foam.

2. Strip off the 1/8" strips of paper, strip by strip. This is harder than it sounds because the paper tends to peel laminate as it is stripped off. Do the best you can without damaging foam.

3. Bend the sheet going past the intended angle of the pin joint. (This relieves stress on the joint).

4. Check radius by eyeing on a circle template. It may take several tries to get the right size radius.

5. Adjust size by making more or less 1/8 slots.

6. Write down final number of strips for reference.

7. If stability of the joint is required or you are going to cut close to the radius do the following.

   Notice that after bending the radius the flattening out the foam has been performed into "V" shape grooves. By forcing hot glue into these "Vs" and folding the sheet you will end up with a strong structural joint.
MEASURING

IN THEORY, IF YOU HAVE

12" BETWEEN CUTS

THEN YOU'LL HAVE

12" BETWEEN SIDES.

NOT QUITE!!!

JOINTS ALWAYS PICK UP SOME DIMENSION WHEN YOU FOLD THEM UP. YOU MUST EXPERIMENT AND LEARN TO SUBTRACT THE DIMENSION GAINED.

A SIMPLE PANEL

CUT SIDES SO THEY WILL FORM A PANEL WITH SIDES 2" LONGER THAN REQUIRED

CUT PANEL DOWN TO SIZE AND VOLA...

IF YOU CUT PIECES EXACTLY TO SIZE, YOU'LL GO CRAZY!!
A SIMPLE BOX IS CONSTRUCTED USING 3 PARTS

A LARGER CENTER SECTION PICK LONGEST JOINT TO BE A FOME-CORE BEND JOINT.

NEED 2 END CAPS.

REMOVE 3/16 ALL AROUND FOR LAP JOINTS.

JOIN LAP JOINT TO FORM A TUBE.

ADD LAP JOINT ENDS (WITH RUBBER CEMENT TIME ON JOINTS)

CHECK BOX FOR SQUARENESS