

# May the Force Be With You!

## Two Story Frame Directions

### Materials:

*\*20 strips of 2" by 11" paper*

*\*2 rectangular pieces of cardboard (5½" x 11" and 5½" by 10")*

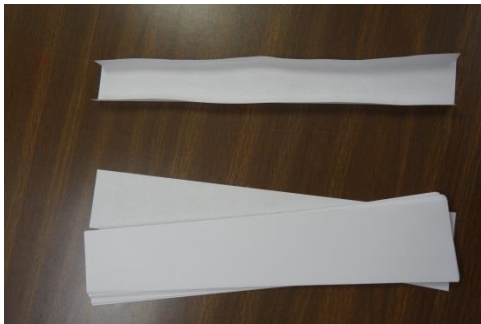
*\*glue*

*\*tape*

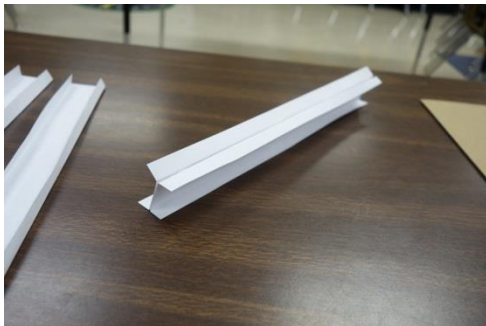
*\*scissors*

*\*ruler*

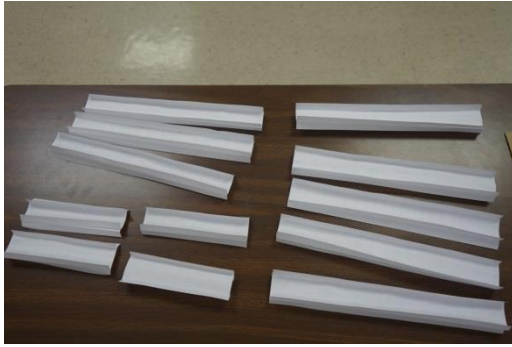
1. Prepare your supplies using the list above. Then, using your ruler to measure, fold each strip in  $\frac{1}{2}$  an inch on each of the long sides.



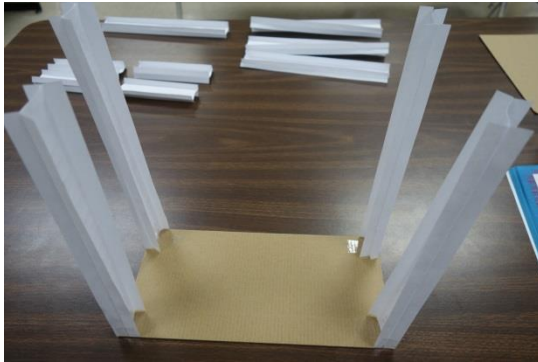
2. Glue pairs of the folded strips together back to back to make 10 I-Beams as shown.



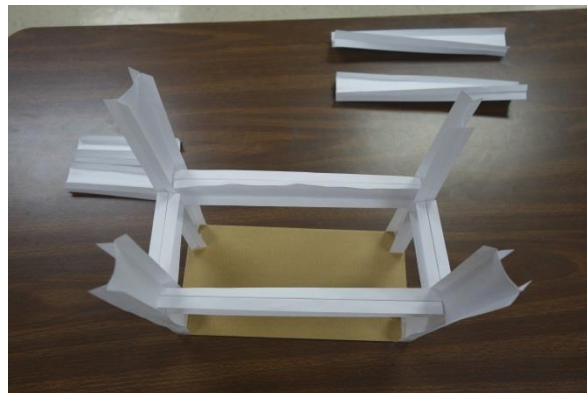
3. Cut two of these long beams in half to make four short ones.



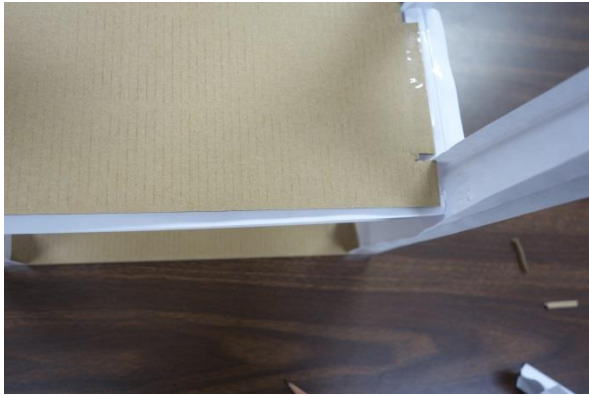
4. Place four long beams vertically in the corners of your 5½" by 11" cardboard (your foundation) and tape these columns in place.



5. The remaining beams are the girders and will be placed midway up - long beams on the sides and short beams on the ends. You will need to trim them to fit as needed. Then, tape them in place.



6. Insert the remaining cardboard as the floor of your first story. You will need to trim as needed or cut slats to go around your I-Beams.



7. Complete your top frame using the remaining girders as you did for the 1<sup>st</sup> floor.



8. Test out your structure with a book (gravity,) blowing (wind,) and shaking (earthquake.)

