

The Basics Of Paper Modeling, Page 1 of 2

Tools Needed

1. Knife
2. Steel ruler
3. Scissors
4. Tweezers
5. White glue
6. Empty ballpoint pen
7. Markers or paint
8. Cutting mat
9. Inkjet or laser printer
10. Cardstock or heavy photo paper
11. Patience



Techniques

1. Scoring

Scoring is a technique used to make folding easier by pre-creasing the paper along a fold line. The most common method of scoring is to lightly drag a knife blade across the fold line, slicing through the upper layers of the paper. The recommended method is to instead use an empty ballpoint pen or a ball stylus tool to gently compress the paper along the fold lines. This prevents the appearance of unsightly naked edges and makes for a much stronger model.

2. Cutting

Cutting may seem to be a glaringly obvious technique, but a few pointers are essential. For the majority of cutting where paper models are concerned, a sharp knife and a steel ruler are far more precise and efficient than a pair of scissors. Save the scissors for separating individual parts or groups of parts from the rest of the sheet.

3. Edging

Edging improves the appearance of paper models considerably by hiding the naked edges of cut parts. Anything from color markers to soft pencils and various types of paints may be used to edge parts. However, in most cases, matching the color exactly is less of a concern than simply matching the contrast. For most purposes, three or four shades of gray from lightest to darkest will more than suffice.

4. Folding and Gluing

Depending on the thickness of the paper or cardstock used, some parts may be difficult to assemble with fingers alone. In this situation, a pair of tweezers is worth more than its weight in gold. Tweezers come in a wide variety of sizes and jaw shapes, and some of the more exotic shapes are fantastically useful for assembling tiny parts. Tweezers can be used to fold tiny flaps and clamp them in place while the glue sets, as well as making it much easier to attach small parts to other parts.

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Special Notes

1. Gluing Tabs

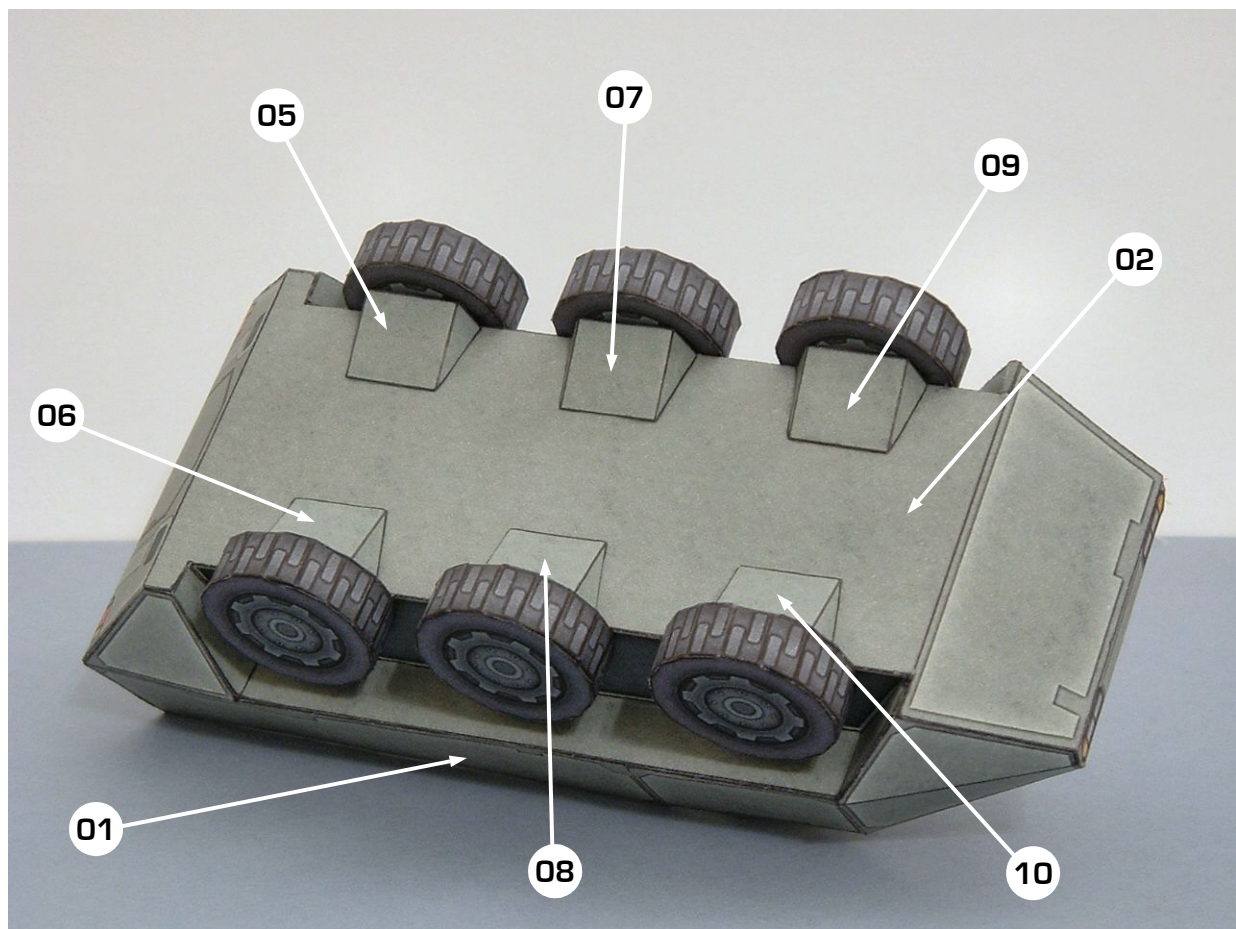
This model includes integral gluing tabs for joining certain parts together. However, the utility of gluing tabs decreases proportionally as the thickness of the paper or cardstock increases. Thick cardstock or paper can be used for printing this model, but it is recommended that you try a test assembly before committing wholly to assembling a model. If the gluing tabs won't fit or otherwise throw off the tolerances of the finished test assembly, leave them off the parts entirely and cut your own gluing tabs out of scrap cardstock.

These separate gluing tabs should overlap both of the parts to be joined, and glued to the unprinted surface along the joining edges of both parts. This is called "backing", and a side effect of this is that parts will fit more or less flush. Backing parts with separate gluing tabs also generally yields better modeling results, but the integral gluing tabs are retained for the convenience of beginners and those who prefer to use thinner media for their paper models.

2. Sealing

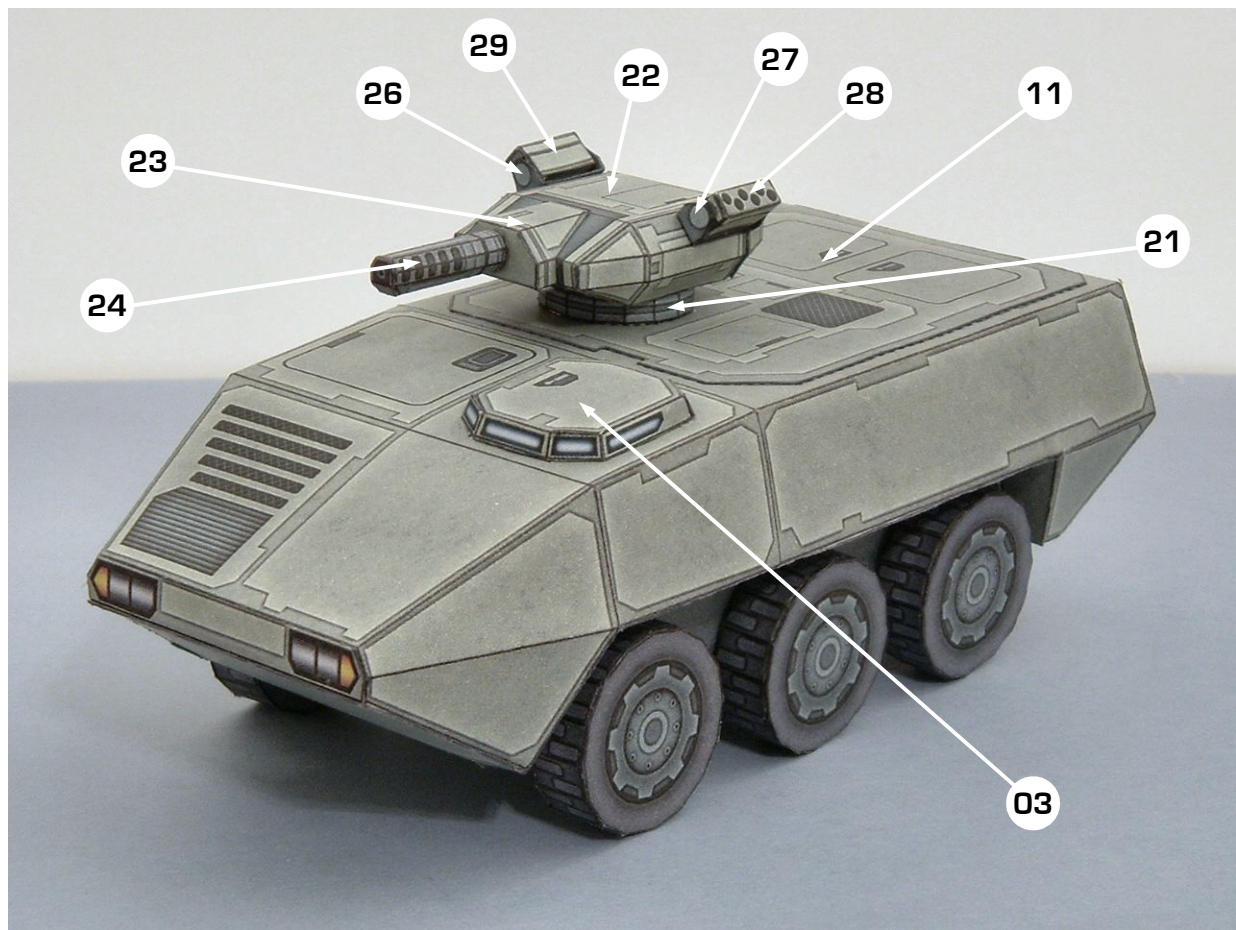
In most cases, sealing the model with varnish or other form of spray sealant isn't necessary. However, if you want to add further detail to the model with decals or paint, you may want to seal the model with several light coats of a waterproof glossy clear sealant first. This will protect the model from a moderate level of moisture, and the smooth surface will facilitate the application of decals. You can also apply a final coat of a matte clear sealant to kill the gloss afterwards. Keep in mind that the simple act of sealing a model does not necessarily render it waterproof, and that any application of waterslide decals needs to be done with great care.

Assembly Instructions



1. First, select the configuration you want to build. If you are building the 105mm Gun or Autocannon Carrier variants, then glue the turret roof plate (Part 12) to the top of Part 01. If you are building the standard troop carrier variant, then glue the standard roof plate (Part 11) to the top of Part 01 as shown on the next page.
2. Glue the upper chassis (Part 01) and the lower chassis (Part 02) together, starting from the rear and moving to the front. Depending on the type of paper or cardstock you use, there may be a slight overlap (@1-1.5mm) at the front of the fenders on Part 02. Glue and smooth the overlapping portions of Part 02 over Part 01. In this step, it is necessary to make sure that the folds on Part 02 are carefully scored and aligned correctly before mating it with Part 01.
3. Build six wheels from the Medium Wheel, Type 1 Western frame and glue them to the chassis as shown above, using the printed alignment marks on the bottom of the chassis as a guide. Finish off the lower chassis by applying the axle shrouds (Parts 05 through 10) as shown above. Finish off the basic chassis by gluing the driver's hatch (Part 03) to the chassis as shown on the next page.
4. Assemble the remote turret body (Part 22). This is a tricky part, but easily manageable if you remember to leave the angled corner "wings" for last. Fold down the straight front and rear strips and glue to the straight side strips first...and then fold down the angled corners last. Then shape the turret ring (Part 21) into a circle and glue to the bottom of the assembled turret. You may find it helpful to use a slightly wetter glue/water mix for the turret ring in order to allow for some repositioning and final shaping.
5. Glue the turret mantlet (Part 23) to the front of the turret, making sure to center it. Assemble one of the following weapons and then glue it to the front of the mantlet: Heavy Machine Gun (Part 24) or 40mm Automatic Grenade Launcher (Part 25).

Assembly Instructions



6. Build the smoke discharger cradles (Parts 26 and 27) and glue the smoke discharger units (Parts 28 and 29) to the cradles. You can glue the discharger units to their cradles at any angle you like. In the photo above, the smoke dischargers have been glued to the upper sides of the remote turret. If you're building one of the weapon carrier variants, glue the smoke dischargers to the sides of the large turret however you like.

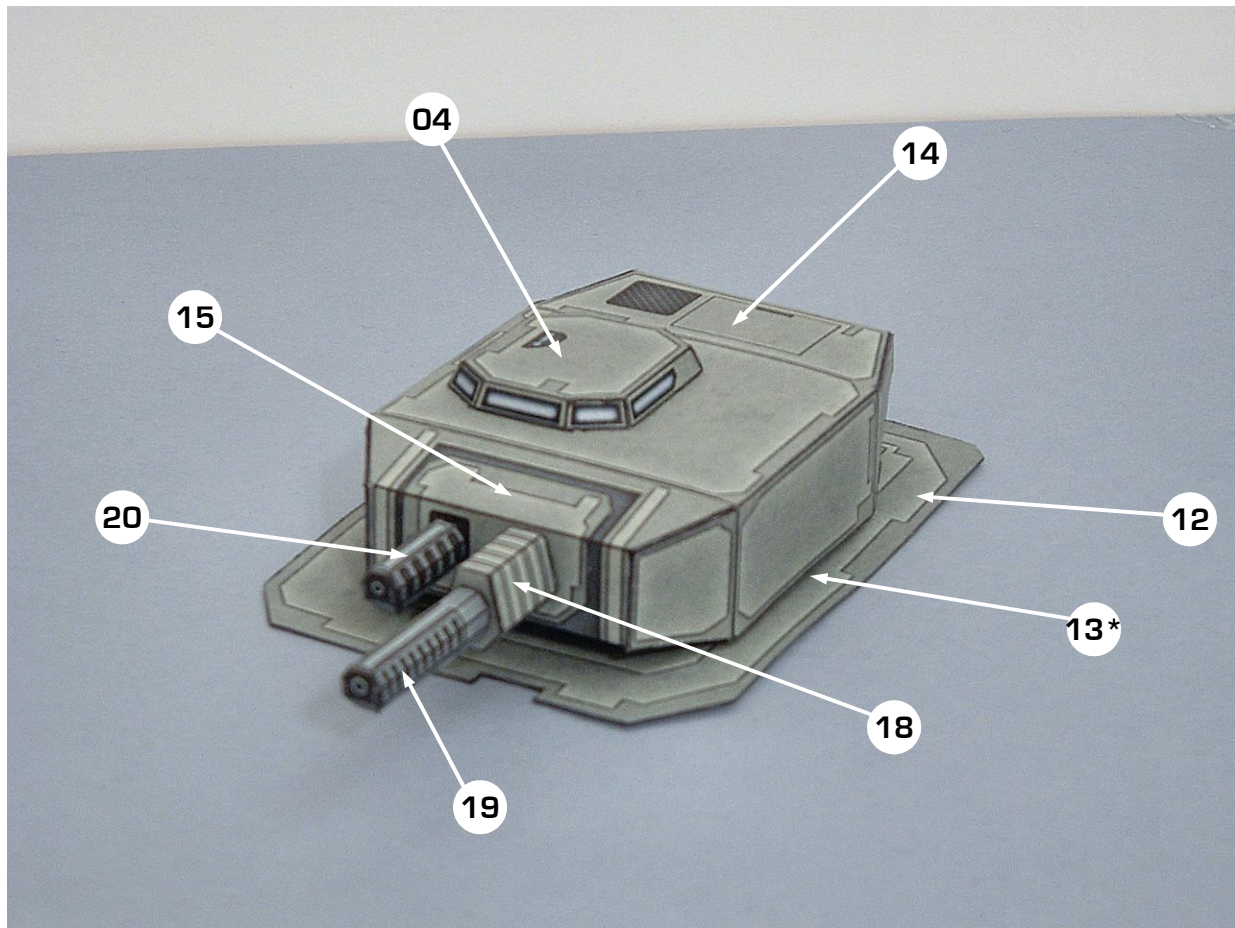
7. If you were building a troop carrier, the model is now complete. Otherwise, move on to Step 8.

8. Assemble the large turret body (Part 14). Layer the turret ring (Part 13) three times on scrap cardstock, and then glue the turret ring to the bottom of the turret body. Glue the turret hatch (Part 04) to the top of the turret as shown on the next page. Finish off the basic turret by gluing the mantlet (Part 15) to the front of the turret as shown on the next page.

9. Select a coaxial weapon and then mount it into the coaxial weapon port as shown on the next page: Heavy Machine Gun (Part 20) or 40mm Automatic Grenade Launcher (Part 25).

10. Select the main gun you want to use. If you want to use the 30mm Autocannon, then glue the autocannon weapon base (Part 18) to the mantlet as shown on the next page, and then glue the autocannon barrel (Part 19) to the front of the autocannon weapon base. If you prefer the 105mm gun, then glue the 105mm gun base (Part 16) to the mantlet, making sure to leave some space between it and the coaxial weapon. Finish off the 105mm gun by gluing the 105mm barrel (Part 17) to the front of the 105mm gun's weapon base. Keep in mind that for the 105mm gun, the flat side of the weapon base faces outward and the beveled side faces inwards.

Assembly Instructions



10, continued:

If that description didn't make any sense, then just make sure that the side of the 105mm weapon base with the two raised circles on the lower half is pointing away from the turret.

The model is now complete.

