

# ANTI-TANK BLOCKS

CARDBOARD MODEL 3D  
FOR 25-32mm SCALE

Shown here miniature is owned by (C) Rackham, and is shown to estimate the scale of the model.



READY  
FOR  
PRINT



FOR S-F  
MODERN  
WW2

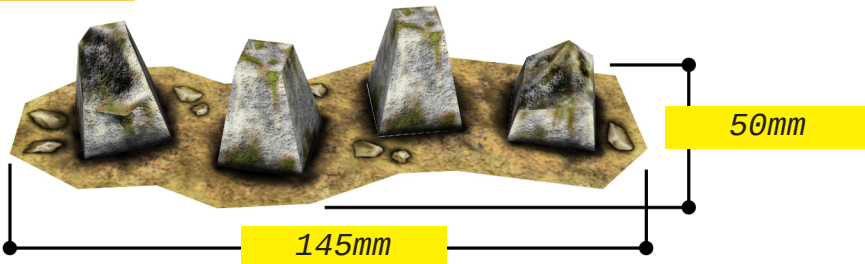
EASY TO BUILD

**darekpages**

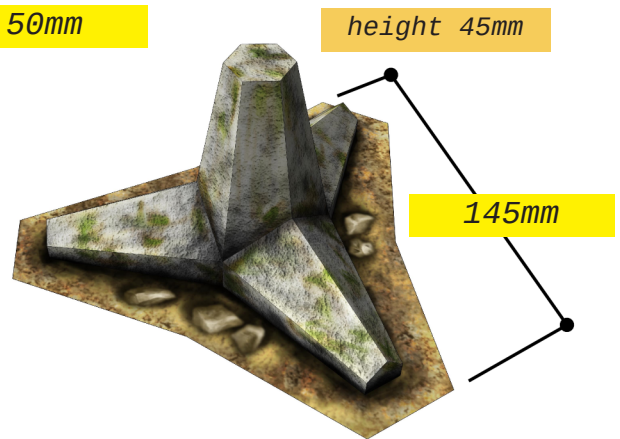
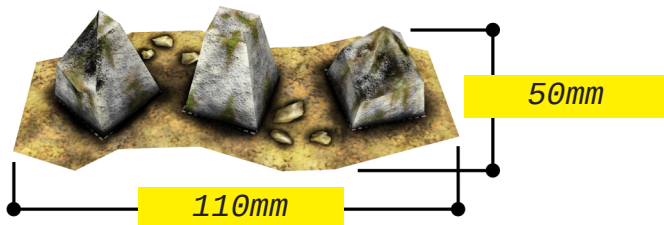
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## ANTI-TANK BLOCKS dimensions

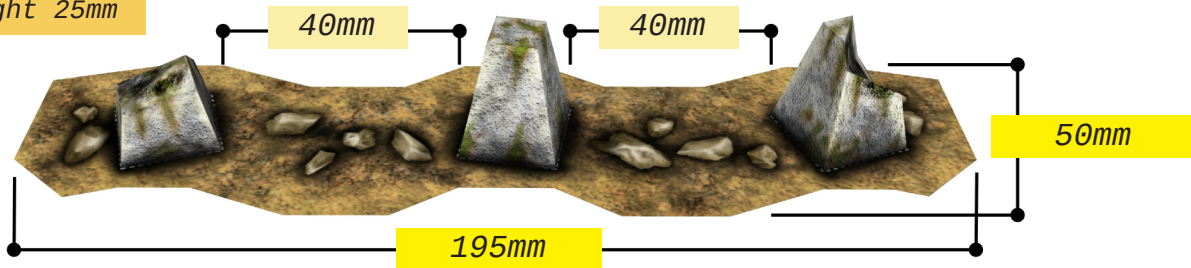
height 25mm



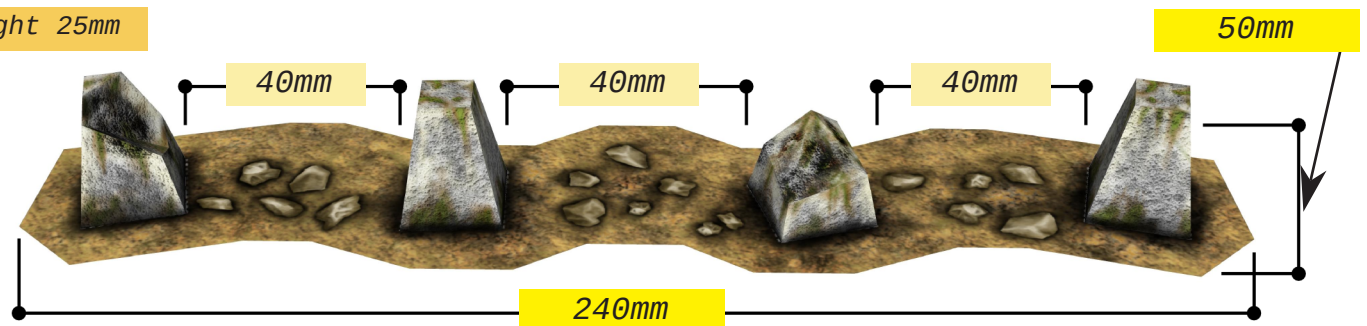
height 25mm



height 25mm



height 25mm



## Anti-tank traps and barrier

Anti-tank and road barriers can stop the movement of tracked vehicles, wheeled and walking traffic units. They can be set on urban roadways as a guard checkpoints. They can also protect troops conducting fire on the battlefield. The models are very easy to make.

The models are designed for miniatures in scale 28-32mm (after scaling can be used with any other system) can be combined on a table with other terrain cardboard elements sf, modern, WW2. Models can be used for table games battle, rpg. Models can be set on stands, alone or as part of another model. Models can be set up in many configurations. The models are stable, durable enough for even the metal miniatures. Models can be assembled quite quickly even

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with little practice.

## Printing

Best model sheets printed on cardboard smooth, matte with a weight of 200g/m<sup>2</sup>, which is about 0.2mm thick. You can print on a different carton, for example, 160 - 220g/m<sup>2</sup>, but it

should be noted that the model was designed for carton weighing 200g/m<sup>2</sup>

**Printer** - inkjet or laser. The printer must enable printing on the carton. The printer has a straight paper path as planar (because the carton is rigid), or printer manual clearly states this. Otherwise, printing may not be possible, and even the printer may be damaged.

**Carton** - A4 carton, white, matt, smooth, in check with a weight of 200g/m<sup>2</sup>.

**Ruler** - the best is made of steel, a length of about 30cm (1ft).

**Needle** - a thickness of about 1 mm, not sharp. Set in a modeling knife handle so that it protrudes about 1cm. Or written all the contribution of fine-tipped ballpoint pen.

**Modeling knife** - it can be a specialized knife with replaceable blades Olfa AK-3, scalpel no. 11 with a suitable lampholder, knife blade segment with a width of 9mm, or any knife for models, crafts, hobbies.

**Cutting base** - the best is specialized mat (Olfa) with a minimum size A4 (the higher the better). Alternatively, you can use thick, heavy card with a minimum thickness of 2mm. Carefully use carton instead of the proper mat, as carton cut easily. Mat facilitates precise cutting.

**Glue** - Glue model, you can use glue "white" Vicol (listed under different brand names: PVA, White Glue, Vicol, often used in carpentry), in a variation of quick drying. The glue "white" can be used toothpicks or other stick. The bonding of large surfaces use glue stick, for example UHU stic or UHU twist & glue. Which glue would be best suited for this is, it's best to try. This glue can not soak too much water carton because plane of will be glued on tight undulate. You can also use glue based on an organic solvent.

**Markers** - used to retouch fold and the edge of the cardboard. Best suited markers brushes (for example, Faber-Castell Pitt artist pen), occurring in a number of repetitive colors, allowing paint a larger area, the edge of the carton and both fine lines.

due to the exact fit parts. In very simple models, the thickness and stiffness of carton it may not be relevant. A good time to try on the selected carton.

## Tools and materials

### Cardboard

The model can be printed inkjet printer or a laser. To get the best color print, preferably printing, use the specified sRGB color profile. Preferably carried out some tests with different profiles ICM. Most printer manufacturers provide their own color profiles that are associated

with the printer, very well cope with the print rgb. Also, the computer display should be calibrated.

# 3

It must be remembered that the printing ink to wait some time to ink was dry. It's easy to blur the fresh print hand. You have to have your hands clean and dry.

You can instantly print the entire document, but it is better to print the sheets that are currently needed. If built part fails, you can always print more sheets required.

The model is designed for printing on A4 sheets. Note to turn off the option in the printer driver, print magnification. You can print on a different format, U.S. letter, but then the printer driver, *you need to determine the magnification to 100%*. Model can be reduced by setting a smaller scale print.

To print model is best to use cardboard sold in check with a weight of 200g/m<sup>2</sup>, white, smooth,

*Before you start gluing the model, be sure to read the instructions supplied with the glue. Property glue is best to test on cardboard.*

matt. You can use the cardboard with a another similar weight 160. 250g/m<sup>2</sup>, but the use of cardboard with different weight will be able to have a negative impact on the final look of the model and its rigidity. The model was designed on A4 sheets (210x297mm). You can print on larger sheets, but for the sake of scale you need to set the zoom ratio to 100%, in the printer software. Cardboards made by different manufacturers have different properties, it is best to choose the stiffer. Certain types cardboard can significantly change the color inkjet or toner not permanently maintain a laser printer.

## Glue

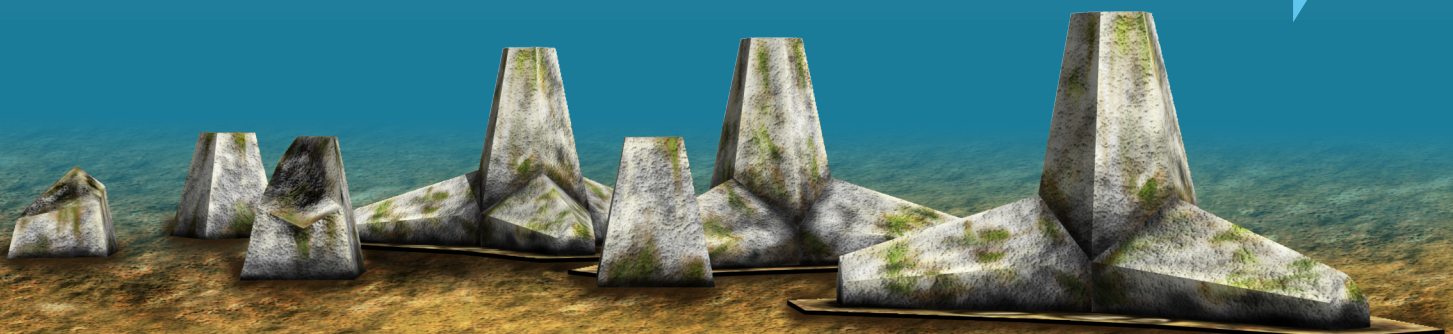
For gluing model is best to use PVA glue (glue White or Vicol) that the bonding of cardboard acts as a contact adhesive and stiffens the body of the model. For gluing best pour out a small amount of glue on the cardboard box, from which the adhesive applied to the model using a wooden stick. The glue adhesive applied in a small amount for plywood. After gluing elements before adhesive hardens, remove the excess with your finger, which rise to the surface of the printed cardboard.

For gluing bases of models is best to use a contact adhesive stick, which is very well suited for gluing large areas of cardboard because it contains a small amount of water, so that almost no waves, curl cardboard. The glued surfaces of this type of glue dries quite quickly. You have to stand during the drying lightly molded, giving it a flat shape.

## Varnish

Finished model can be protected against UV light and moisture (inkjet print) or from abrasion printing (laser printing) varnish (in spray) used to protect photographs printed in ink. Dispensed the amount varnish to the model remained matte - not glossy. Best perform the test on the test print to check the quality of the coating.

**NOTE:** Blades modeling and needles can be dangerous, they can really hurt themselves. Please use them carefully. Whenever you use the blade should be secure adequate guard and stored out of reach of children. Cut and paste is only suitable base that protects furniture from damage. Before opening the container with adhesive, thoroughly familiar with the the manual of it and follow the rules. Before bonding, check the label or accompanying instructions glue whether it is safe for us. Carefully use a glue that does not stain your clothes and furniture. Hand touching soiled with glue and close to the eyes and mouth. After bonding, thoroughly wash your hands, because the glue can be harmful to your health. During the gluing ventilate the room, because vapors can be harmful to your health. Glues and tools should be stored out of reach of children.



## Assembling the model

### Bending

After printing sheet can be divided into smaller individual components, which can be easily manipulated. Before you cut, you have to prepare all the folds (dashed lines and folds). Drag fold lines (with slight pressure) needle with a ruler, on the print side until a recess (no cuts, damage to the surface of the printed carton) that will allow easy bending of the wall. To catch skill, you can try this technique on a scrap piece of cardboard. Bending lines can also be formed using a checked out ballpoint pen, a thin (up to 0.7 mm) tip. Bends can see a piece of cardboard guided parallel to the light. In that light bends becomes visibly darker. So you can check if all the lines are prepared bends.

Another method is to fold line marking the end of a thin needle (punching carton), followed by the formation of the fold (above given method) on the reverse side of the printed sheet. Thoroughly bends facilitate the submission of the model.

### Cuts

The individual components have to cut as print lines with a ruler. If you have a skilled at cutting, you can cut without a ruler, which greatly speeds up the work. All edges of the part to be cut along the edge print, do not cut the part of the print, and do not leave carton printing. The blade modeling with a focus pull no more that will cut cardboard. More emphasis could cut a mat or even break a blade. Elements glued with a few layers of carton, preferably cut by cutting several times with slight pressure. In any case, you have to remember to always carry a knife blade vertically.

After cutting the parts can be folded without sticking check fit together and reflect on the order of assembly (because after applying the adhesive for fold will be little time to think). Now you can retouch fold and white (edge cut carton) pieces of carton which should be covered in print. Sometimes the piece of fold may extend, it must be anticipated and paint over the marker. Take care that the color marker pen to its color was the most suitable for offset printing. Retouched with care so as not to have to paint the printed surface.

### Retouching

The model can be done without retouching (standard), but it is nicer retouched.

The model can be glued without retouching. In a well-made model, clear traces of carton are hardly visible, provided that the model will be seen at a distance of 30cm (1ft). Before gluing the model, its parts can be retouched. Touches

up the the cut edges of the cardboard and in contact with them folds. When you cut and molded parts (before gluing) should retouched the places where you can see a white carton. The retouch is best to use markers pędzelkowych whose ink does not penetrate across the carton, and does not spill on it. Color markers to choose the most similar color to the retouched portion of the model. A good time to test the used cardboard.

### Gluing

Before gluing preferably model mounted on a "dryly", check whether the parts fit together. Several times to check the positioning element to element glue it some movement. If a bottle of white glue does not have a dispenser, a few drops glue (glue dries quickly) impose on the cardboard box, from where to download it with a toothpick. The fold a small amount glue applied so as not to stain the printed surface. Glued joints pressed against a motion, and hold a few seconds. Excess glue that can be squeezed out (before harden), gently remove your finger along the seam. Even for a few minutes, in an emergency, glued together parts can be gently disconnect to glue them correctly.

After gluing the larger element, or the entire model, it is worth to stiffen the edges (sharp edges) from damage PVA glue. A small amount (very small droplet) apply glue on the edge, then a flick of your finger, spread glue along the edges. The glue will harden the edges.

## The recommended way of making

Build the model should begin printing sheets with parts.

The individual elements must be cut from the sheet. After thorough cut out the element, the place marked as the bend (solid lines and dashed), to route the original steel line, checked out the tip of a pen or the blunt side of the blade knife modeling. You have to remember that the precisely routing of bends will have a significant impact on final appearance of the model. The emphasis so choose not to cut the surface of the printed card. Afterwards all the elements of the model kink the (see drawings) and execute retouching all the places where the white board seemed to be inadequate (but not retouch the model is not mandatory; paper models without retouching the so-called 'standard'

scale models).

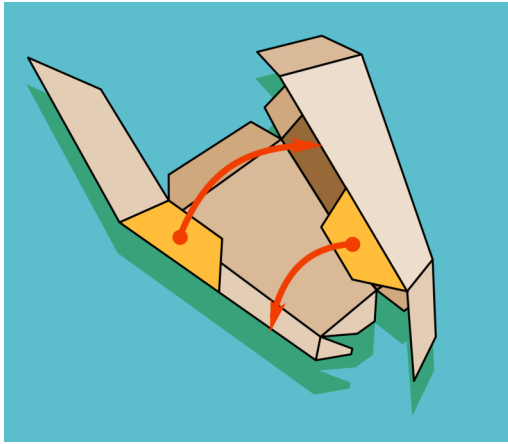
If you made the model seems to be too light (and this may be, when the model is used alone, without base) can be banged on on the basis of paste one or two thick steel washers (for the nut on the bolt) or fishing sinker (which you can buy at the store accessories for fishing).

Before you start gluing, preferably make a model of "dry", making sure that everything fits together. At this stage, You can arrange the gluing.

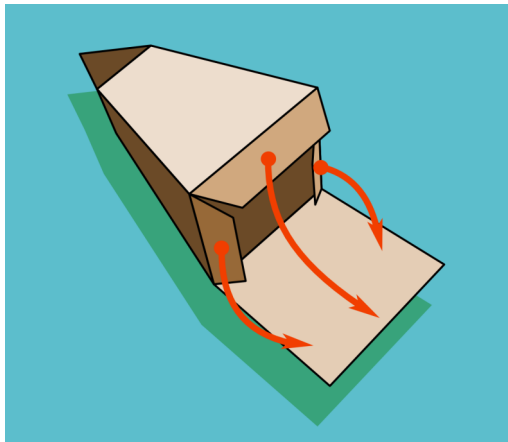
Traps antitank best stick in the order given below. First, glue the side walls solid, with flaps opposite.

Traps anti-tank

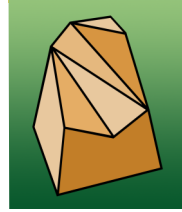
You can then glue down the model and at the



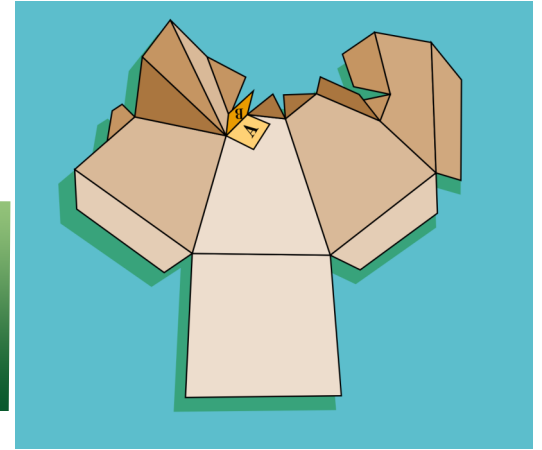
end up.



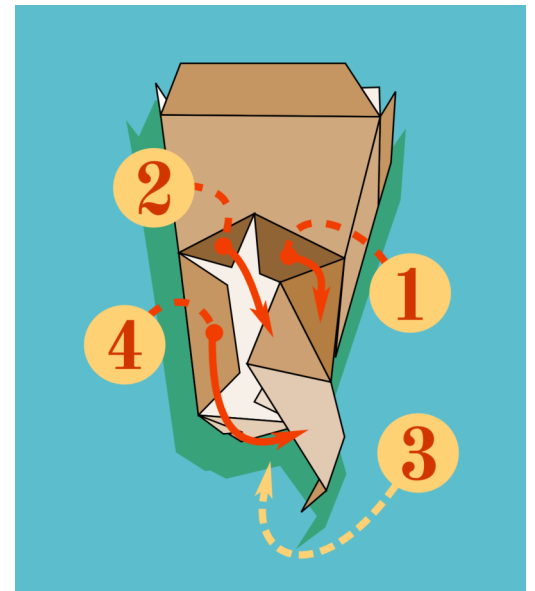
Traps anti-tank destroyed



Before gluing the trestles antitank model destroyed, you should stick an extra flap (glued flap A) in the position shown in the illustration:



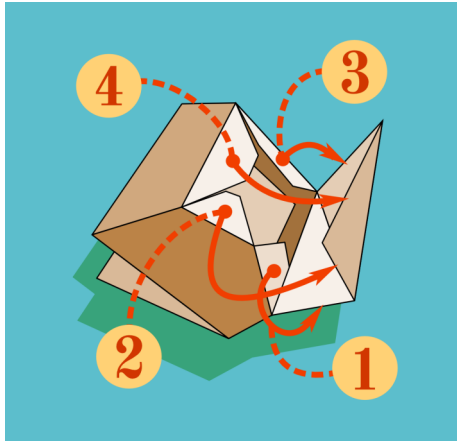
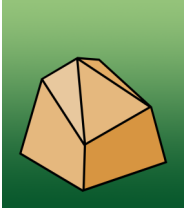
Then you are ready for assembly solid. First, glue the side walls (as in Figure 1), and then start gluing the top model. Preferably gluing to perform the operations indicated in the figure numbers. Number 3 is glued to



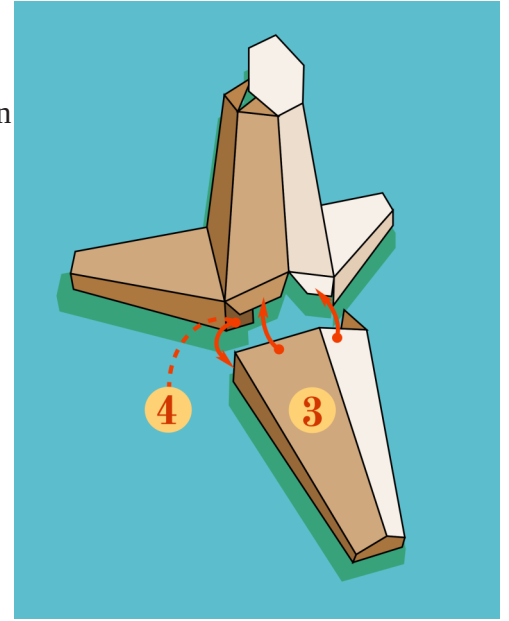
flap element B. Finally glue the top of the model and its down.

**Traps anti-tank completely destroyed**

Model trestles antitank completely destroyed, gluing start gluing the top model. First element glued to flap 1, then 2. Then, flap 3 and 4 at the end of the model down



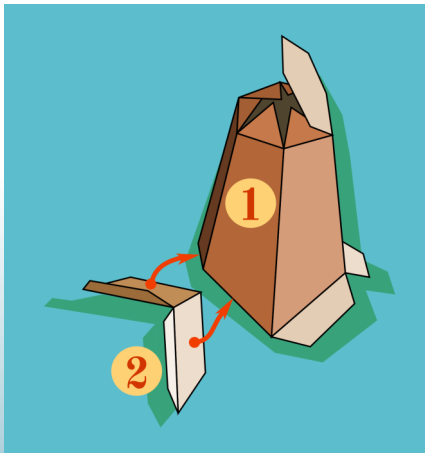
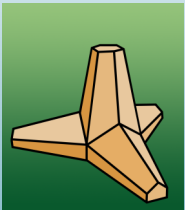
Then glue the side parts 3 (B-2.3.. B-2.5), which are then glued to the flap side 2 (flap edges may protrude, preventing precise gluing section 3 (B-2.3.. B-2.5), then you should be cut - but only after gluing the flap).



**Large traps anti-tank**

glue.

To start model large anti-tank block (B-2.1.. B-2.5), assembly from the element 1 (B-2.1),



**Bases**

Finally, glue the flap 4 and glue the top of the model. Model glued to the base.

Bases. Models which have no basis to be glued to the

and then glue to the bottom of the second side of flap 2 (B-2.2).