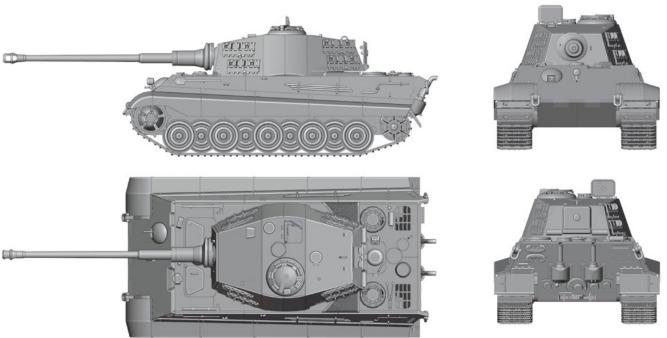
3D printed radio controlled model of German heavy tank (1943-1945)

Scale: 1:10 Width: 377 mm Height: 328 mm

Length: 1017 mm Weight: 8000 g





Author: Luboš Hort

Web: www.3dprintedtanks.com
E-mail: info@3dprintedtanks.com

Thank you for purchasing the tank model STL files. I tried to prepare the parts as carefully as possible with regard to simplicity and possible repairability.

Some parts may not exactly match the illustrations in this manual.

These are later modified or improved parts. Please follow the updates:

https://3dprintedtanks.com

What you will need:

- 3D printer with an area of 25x20 cm and 5-6 kg of quality brand PLA
 - ball bearings: 10x15x4 (12 pcs), 15x21x4 (44 pcs)
 - small tension spring (length can be shortened)
 - air chamber of small diameter (3 cm) from a bicycle





- brushed motor size 540 (2 pcs)
- standard size servo (2 pcs) (or 1x standard + 1x 360°)
 - ESC for brushed motors 45-60A (2 pcs)
 - two resistors 2k7 ohm







- 2S1P Li-Po batery 7,4 V (2 pcs)
- M3 screws- 8 mm-63x, 10 mm-46x, 12mm-10x, 18mm-2x, 20mm-2x, 25mm-1x, 30mm-2x, 35mm-8x
 - M2 screws 6mm-4x, 8mm-6x, 10mm-6x
 - M2,5 screws 10 mm 8x
 - M3 nuts (10 pcs)
 - M3 headless srrews (4 pcs)
- brass wire 2 mm, lenght 75 mm 184 pcs (track connections)
 - medium CA glue and activator
 - grease PTFE, colors, varnish, etc.
 - RC transmitter (OpenTX is the best choice)

Recomended print settings:

nozzle: 0,4 - 0,5 mm

extrusion width: 0,5 mm, for detailed parts 0,4 mm

layer height: 0,15 mm

perimeters: 2-3

infill: 50 % (tooth gears, and stronger parts with 98%)

temperature: 220°C HE, 50°C HB

printing speed: 80 mm/s, external perimeters 30-40 mm/s

Try printing gears with one or two perimeters, there may be a difference.

My recommendation is for large parts 3 perimeters, small parts 2 perimeters and gears 1 perimeter.

This is my recommended printer setting, however, you can also use your favorite setup.

Before gluing the parts, test their seating.
Use a file to compare the contact surfaces,
sharp knife or sandpaper.

The most common problem is the "elephant's foot" - an expansion of the print. This must be removed.

Also carefully plan the placement of seams, especially for tooth gears.

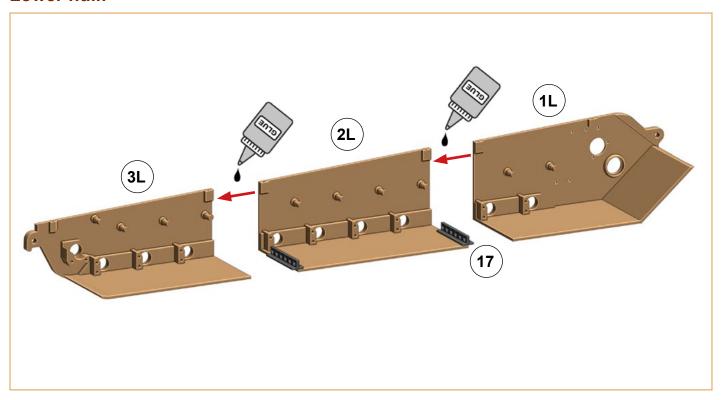
More pictires you can find here:

https://lubos71.rajce.idnes.cz/King_Tiger_II./

Videos:

<u>youtube</u>

Lower hull:

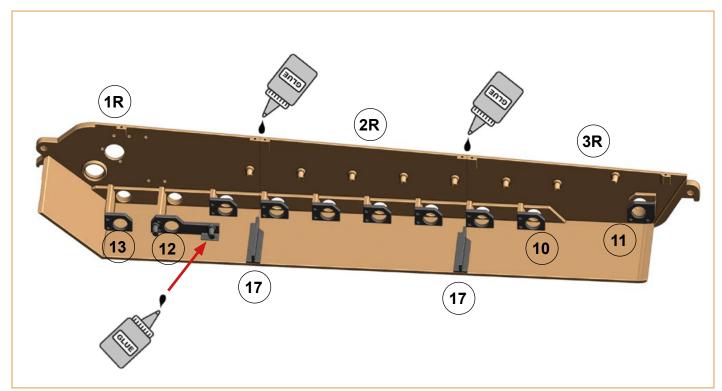


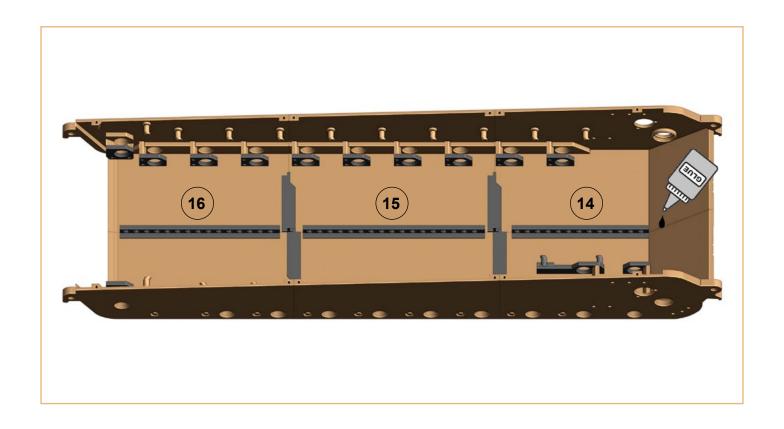
20x screw M3 8 mm



Lower hull:

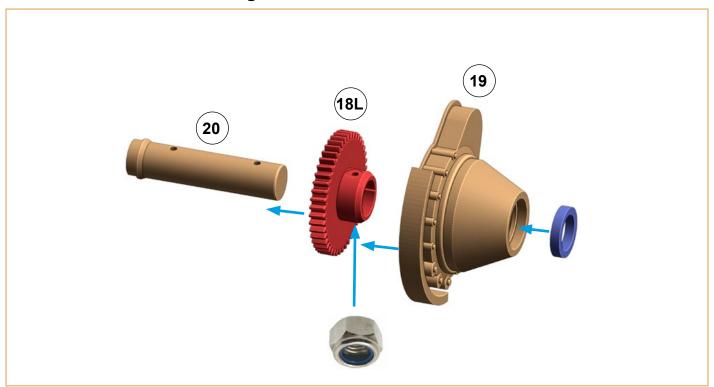
20x screw M3 8 mm



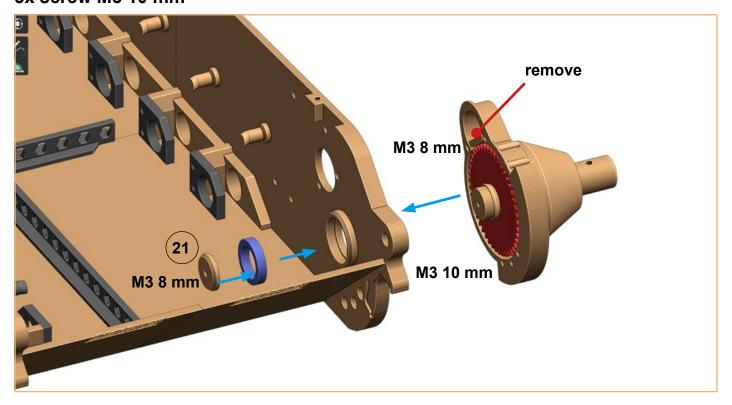


Lower hull:

screw M3 25 mm + self fixing nut M3



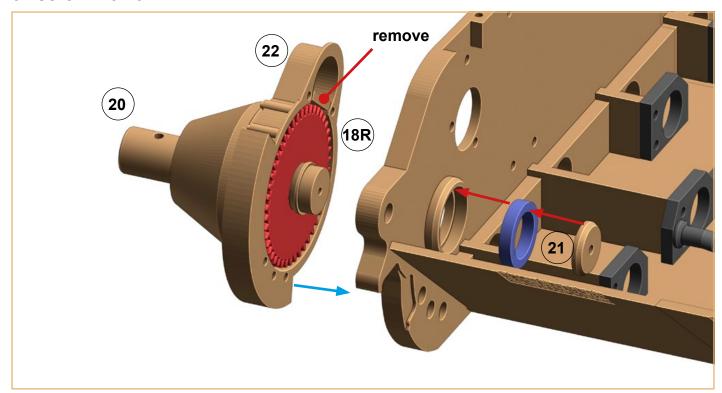
3x screw M3 8 mm 3x screw M3 10 mm

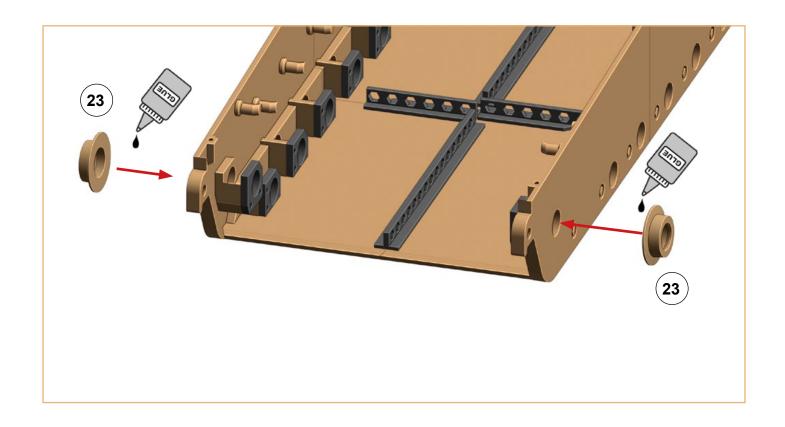


Lower hull:

3x screw M3 8 mm

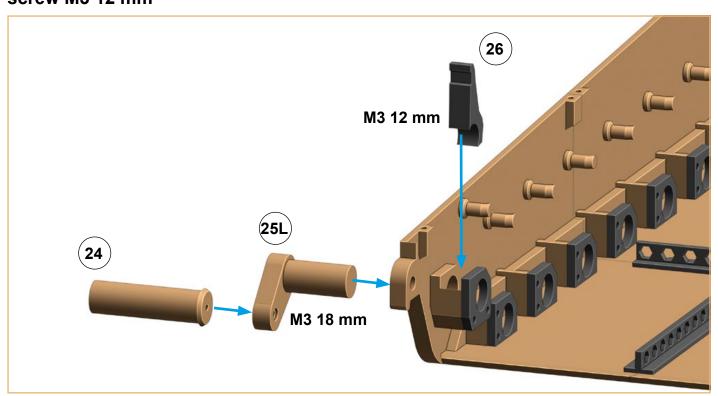
3x screw M3 10 mm



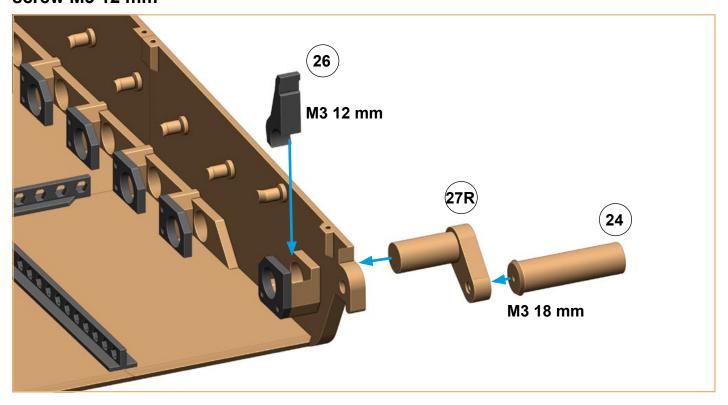


Wheels suspensions:

screw M3 18 mm screw M3 12 mm

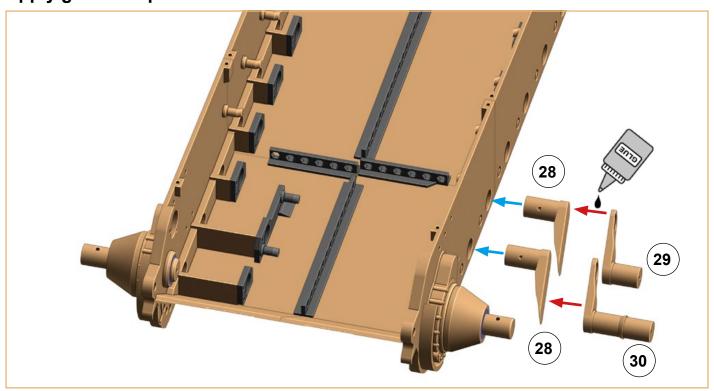


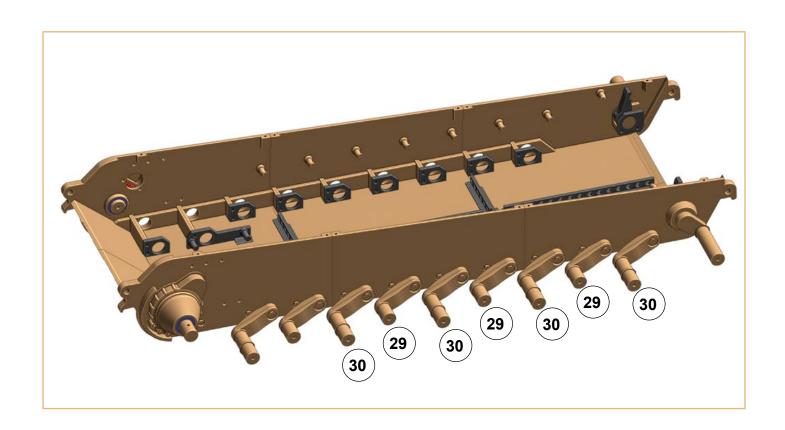
screw M3 18 mm screw M3 12 mm



Wheels suspensions:

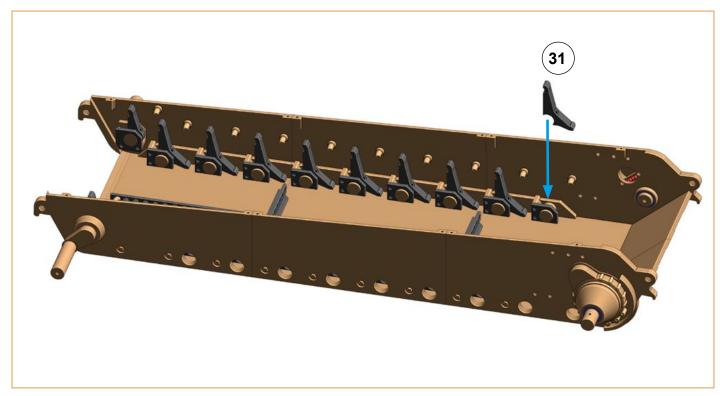
Apply grease to parts 28.

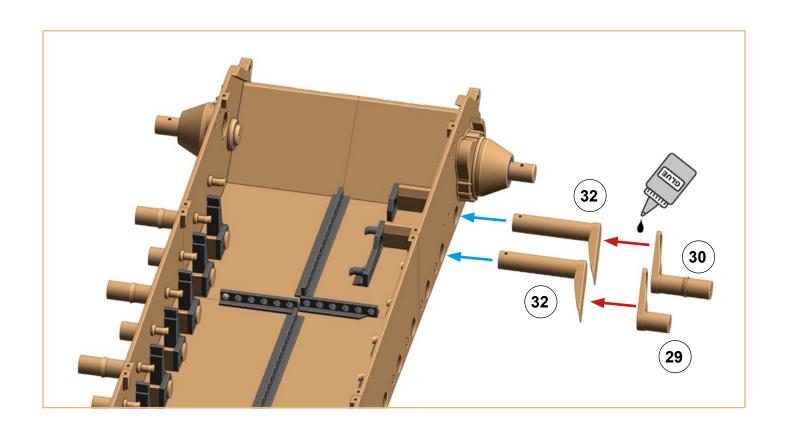




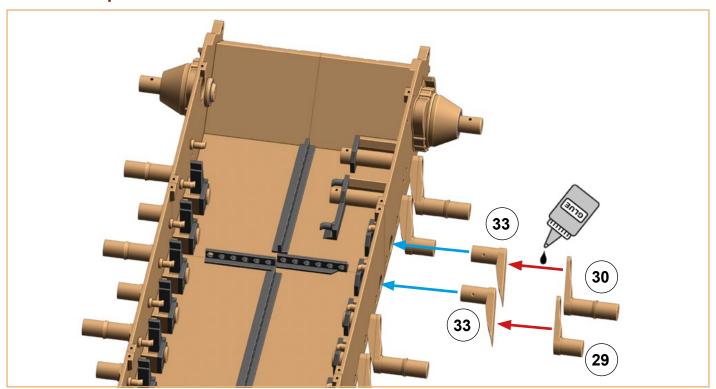
Wheels suspensions:

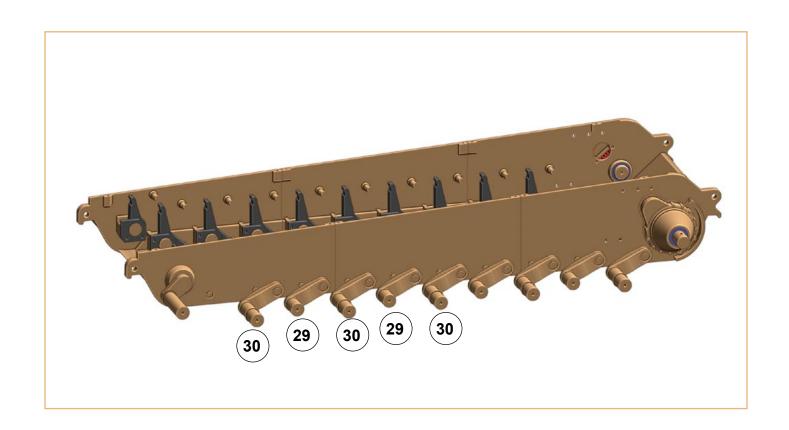
9x screw M3 10 mm





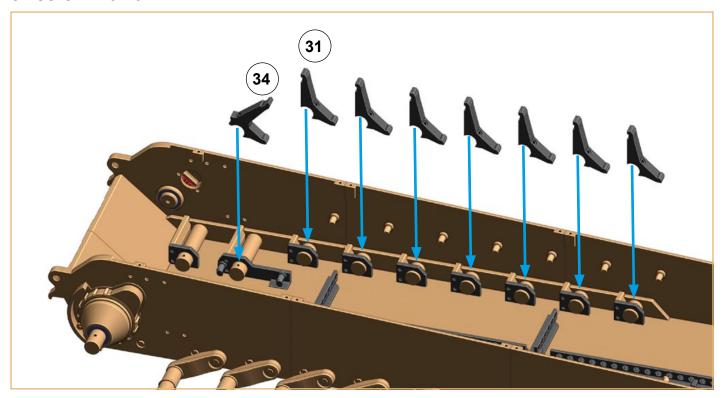
Wheels suspensions:



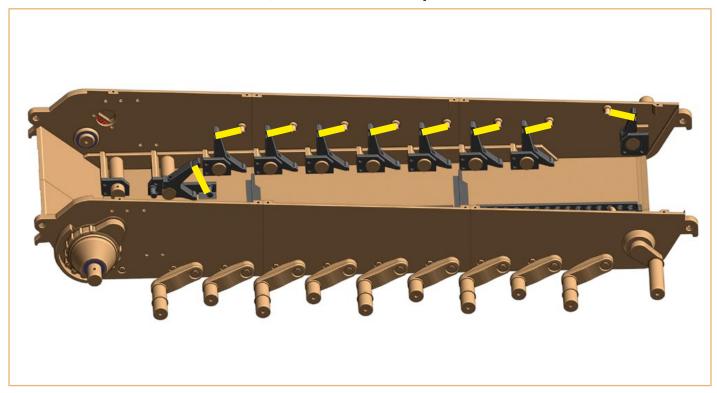


Wheels suspensions:

8x screw M3 10 mm

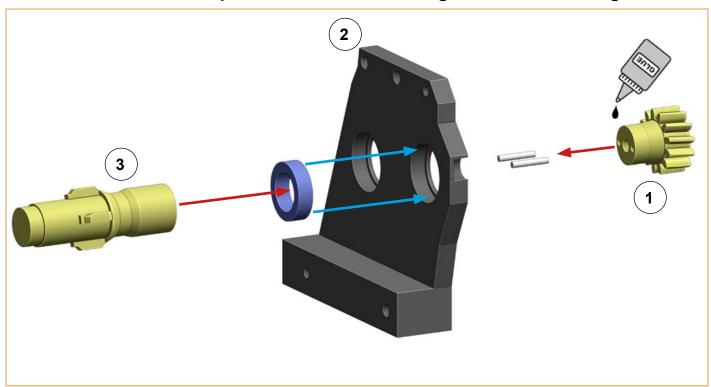


Use rubbers from air chamber, for first and last position double it if needed.

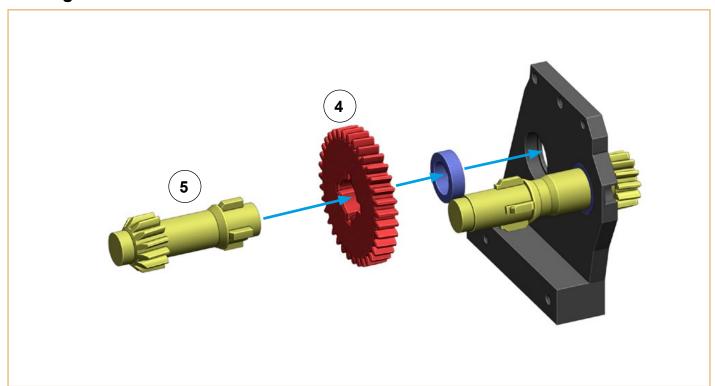


Gears L (left side):

screw M3 20 mm, bearing 10x15x4, brass wire 1,5x10 mm 2x For a firm connection of parts 1 and 3, use a little glue before screwing.

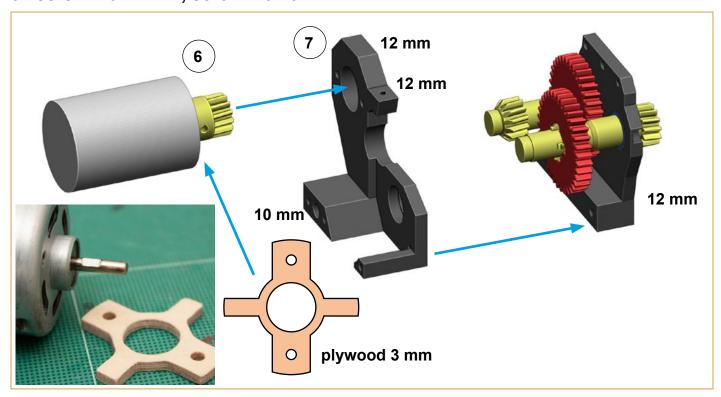


bearing 10x15x4

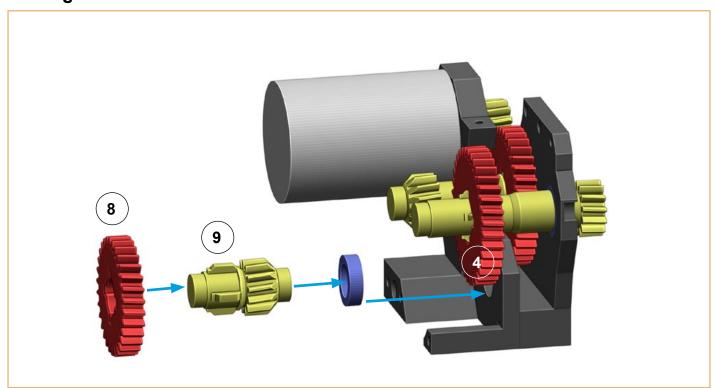


Gears L (left side):

2x headless screw M3 2 mm + 2x nut M3 (for pinion gear No. 6) 3x screw M3 12 mm, screw M3 10 mm

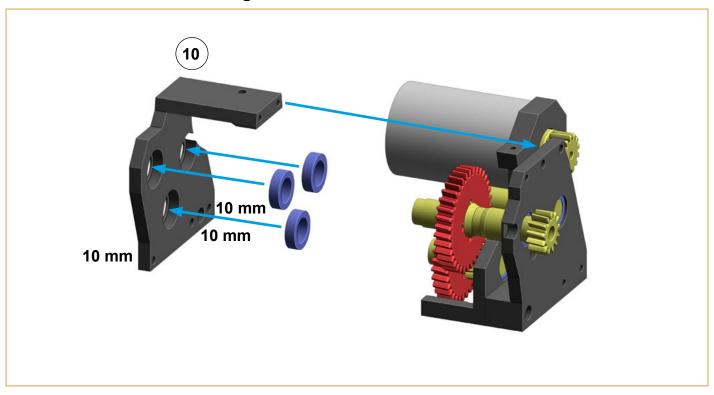


bearing 10x15x4



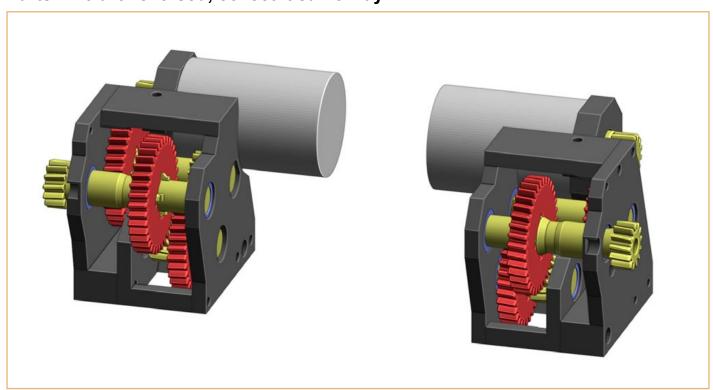
Gears L (left side):

3x screw M3 10 mm, bearing 10x15x4 3x

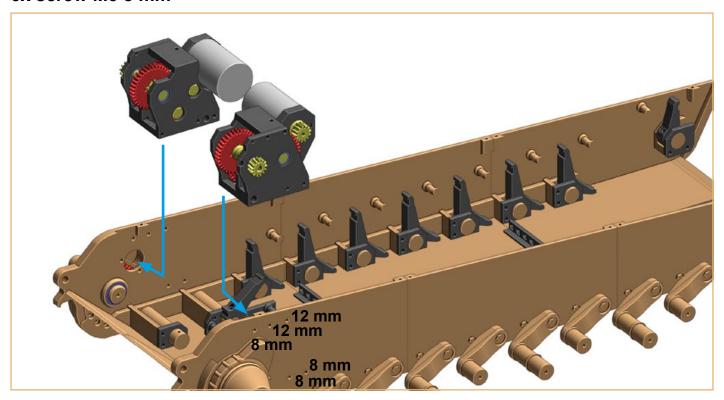


Gears R (right side):

Parts 1-10 are reversed, collect it same way.

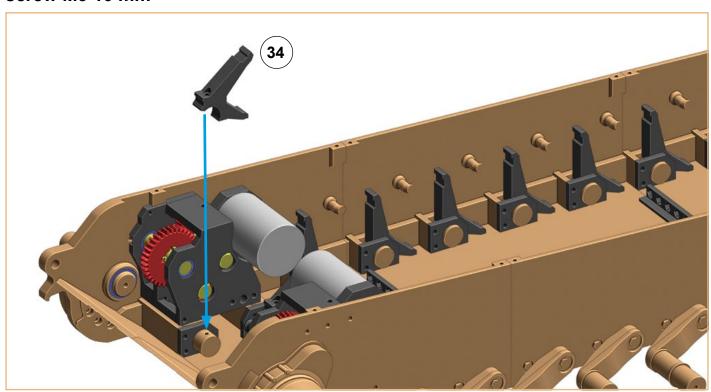


4x screw M3 12 mm 6x screw M3 8 mm



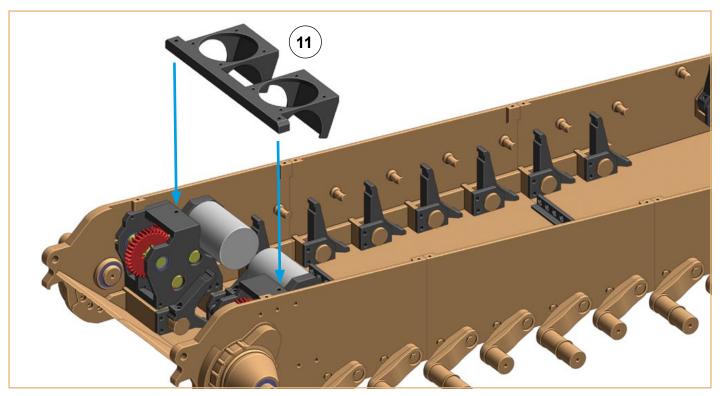
Wheels suspensions:

screw M3 10 mm

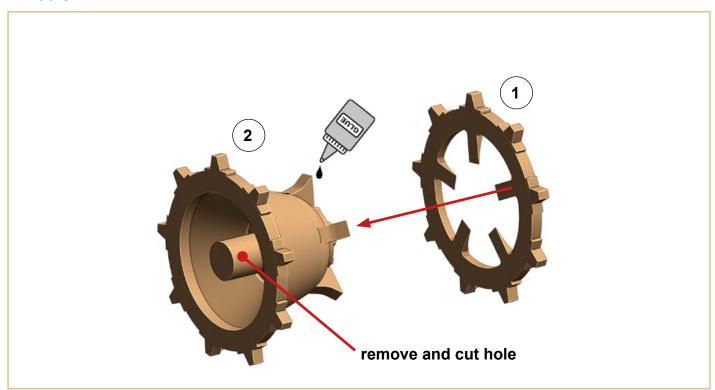


Gears:

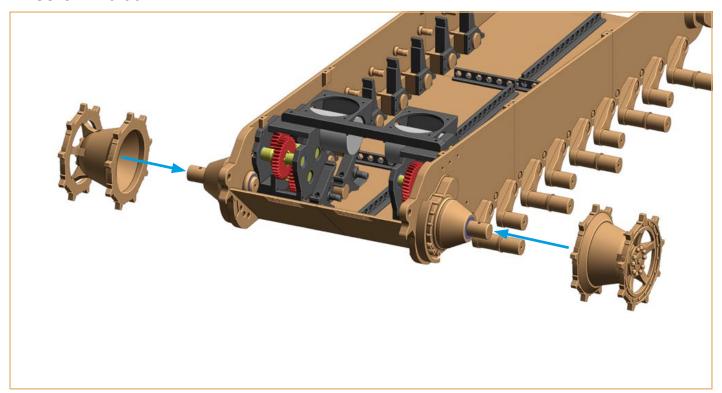
2x screw M3 20 mm



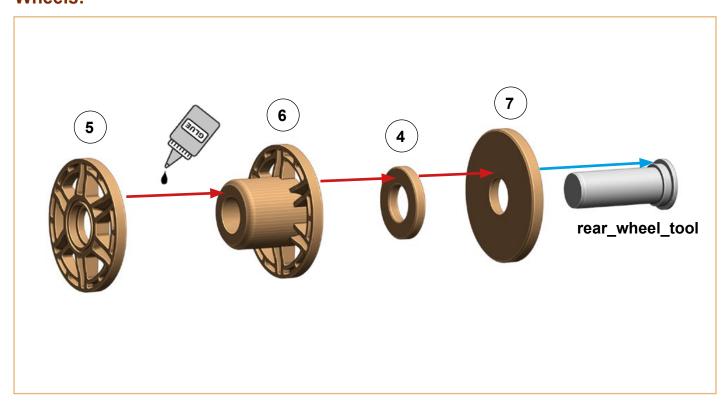
Wheels:



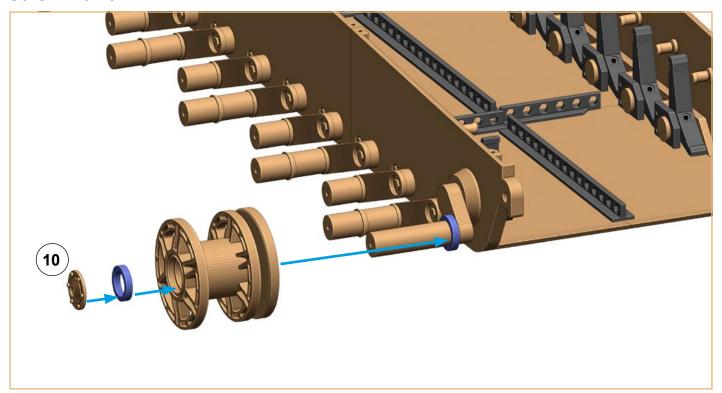
2x screw M3 30 mm



Wheels:

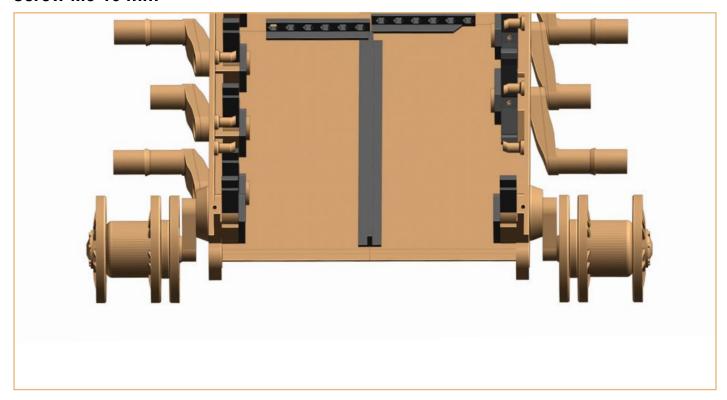


screw M3 10 mm



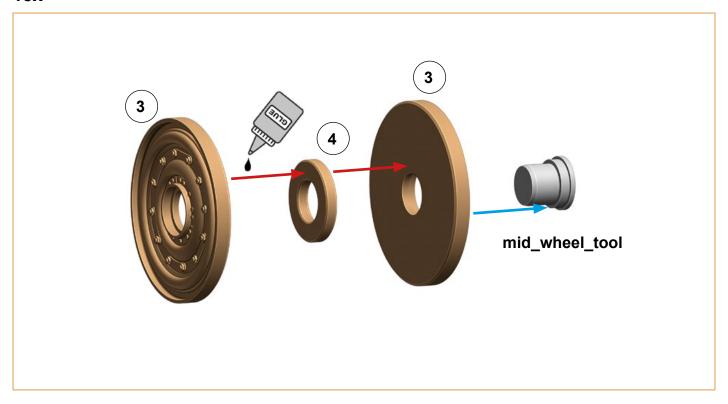
Same for right side:

screw M3 10 mm



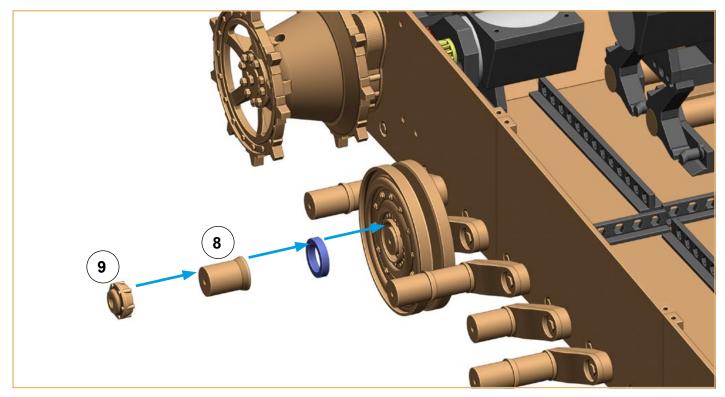
Wheels:

18x



screw M3 35 mm

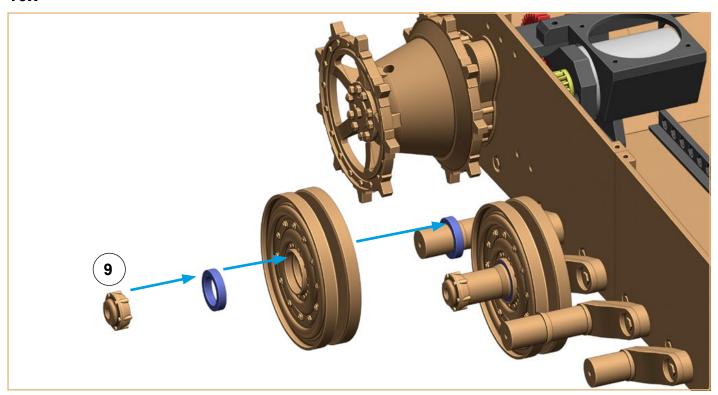
8x

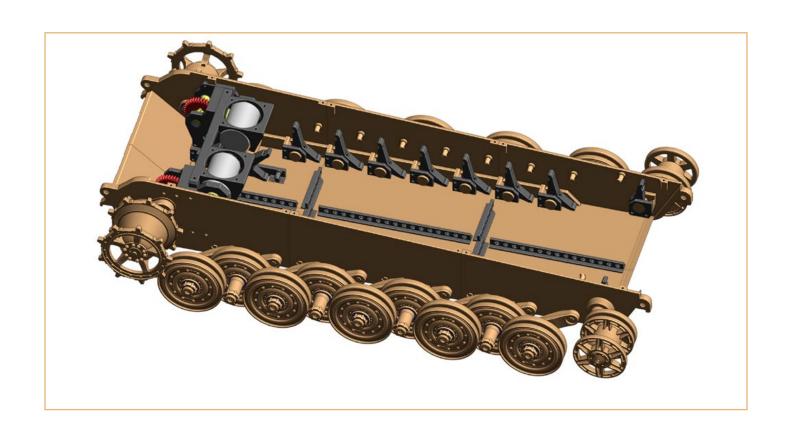


Wheels:

screw M3 12 mm

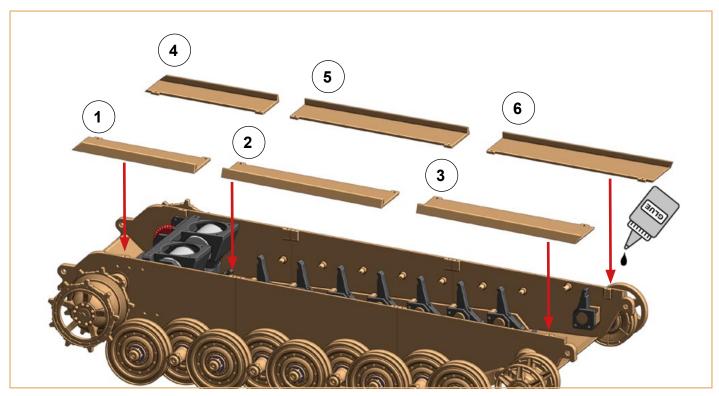
10x

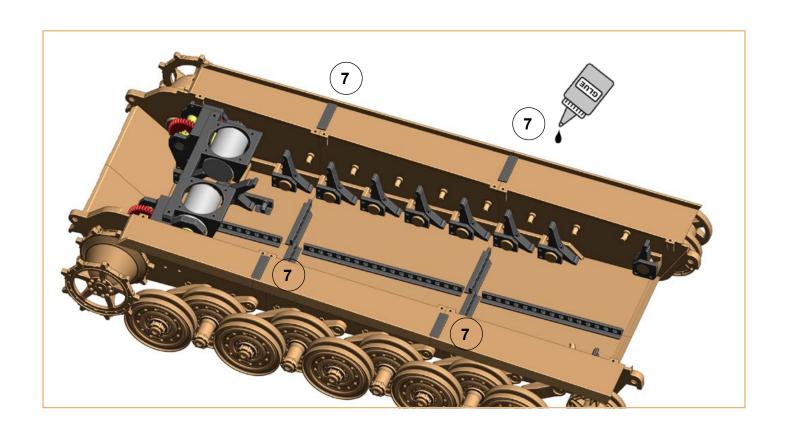




Fenders:

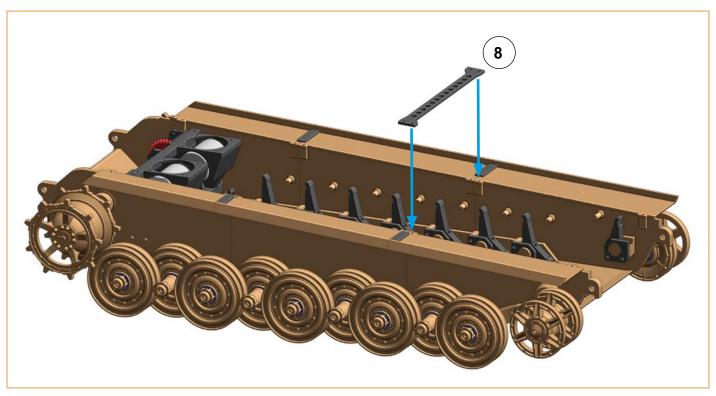
8x screw M3 8 mm

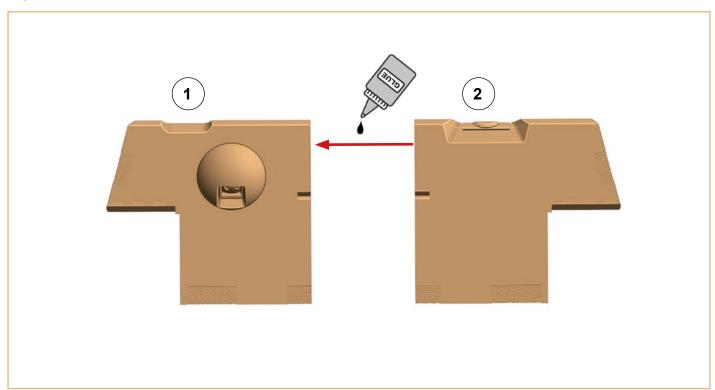


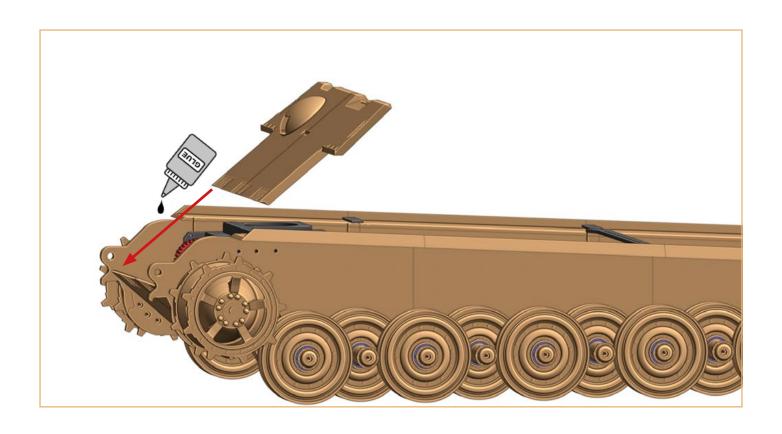


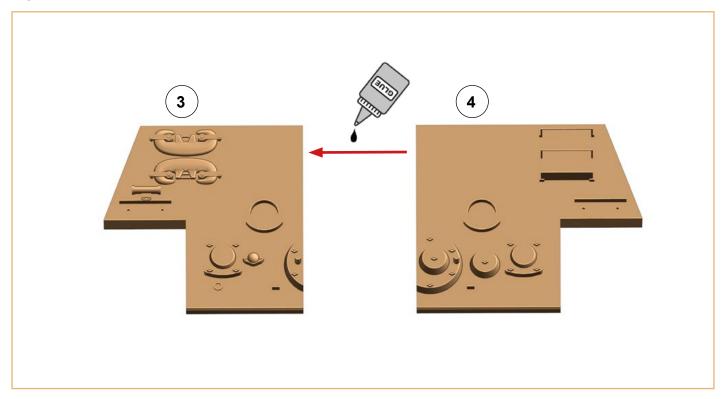
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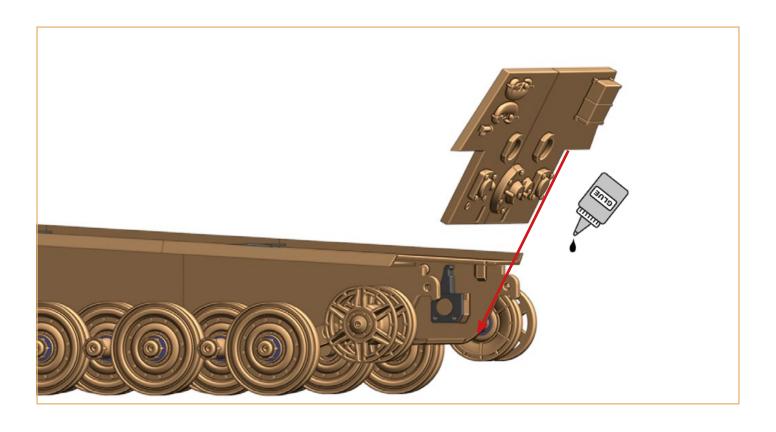
4x screw M3 10 mm





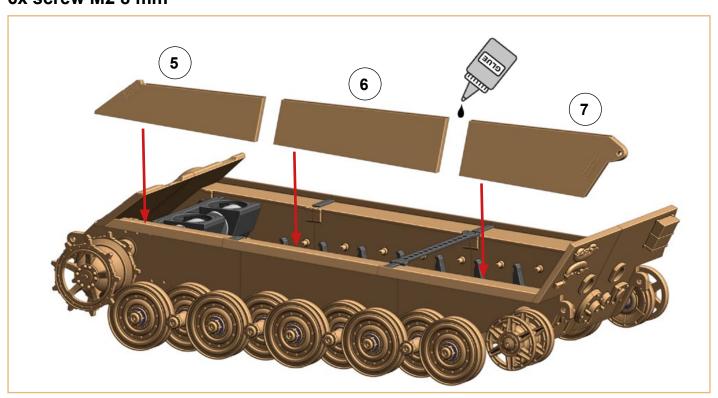






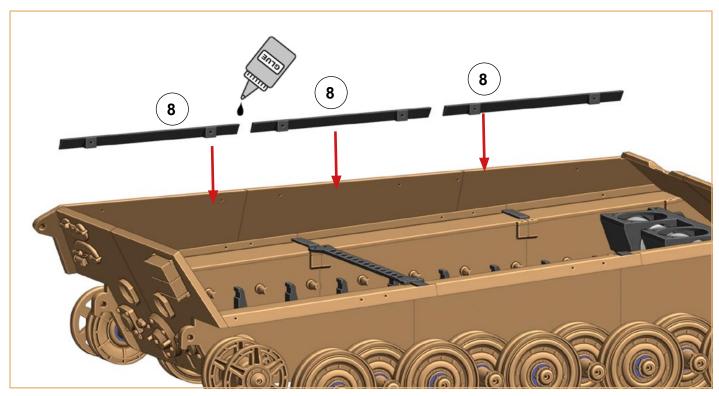
Hull:

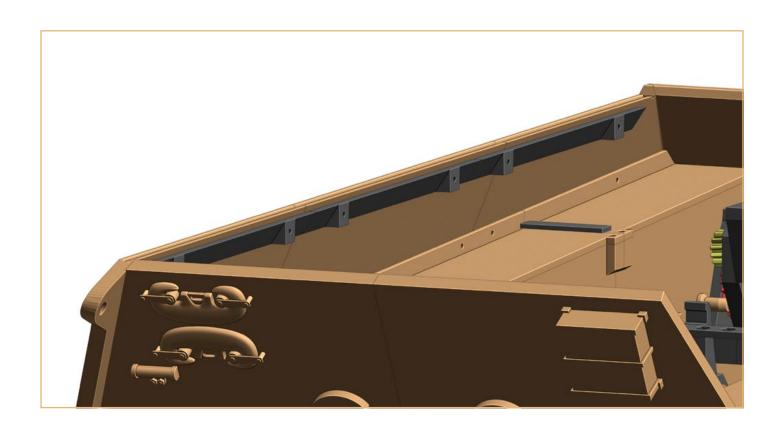
6x screw M2 8 mm



Hull:

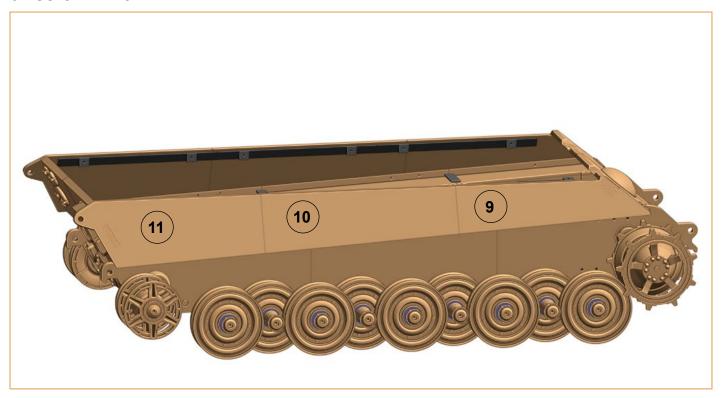
6x screw M2 10 mm



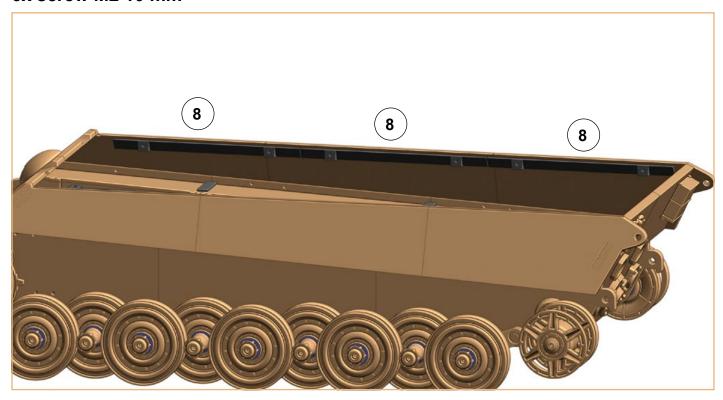


Hull:

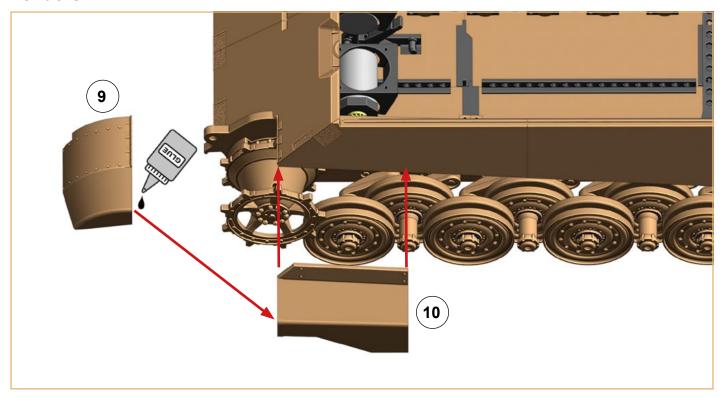
6x screw M2 8 mm



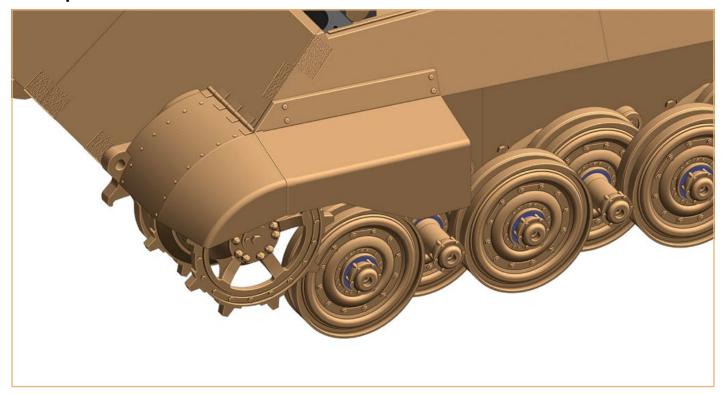
6x screw M2 10 mm



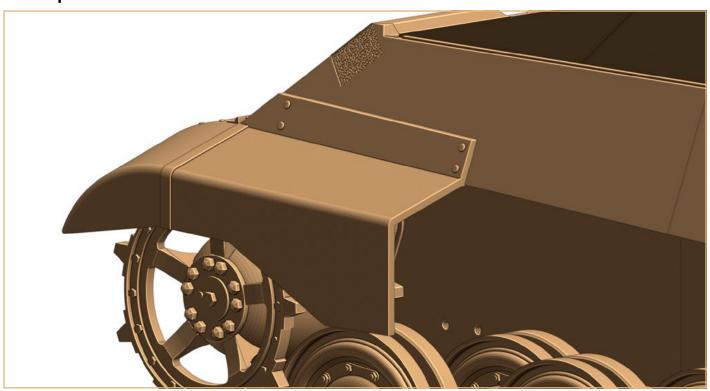
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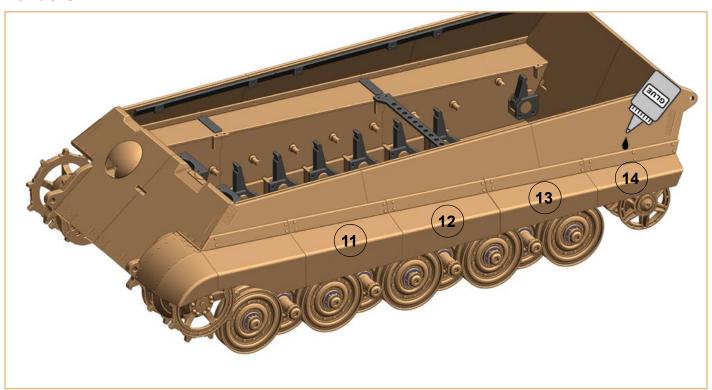
Exact position:



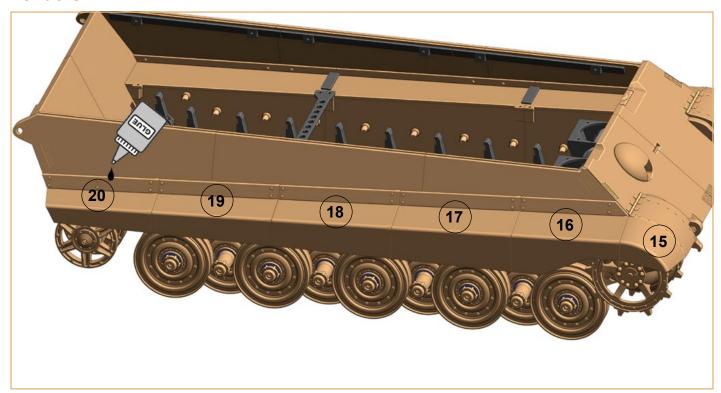
Exact position:



Fenders:

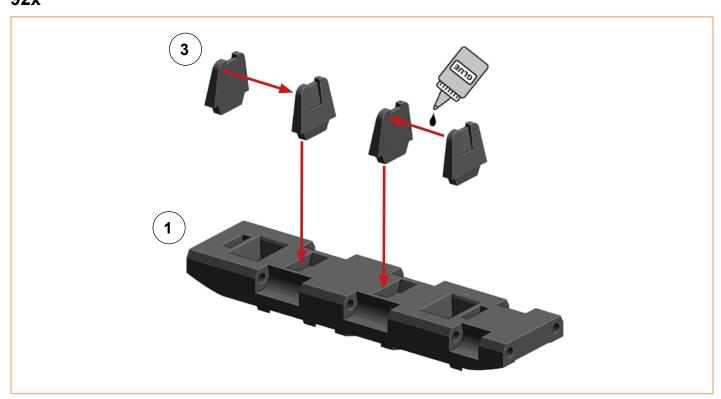


Fenders:



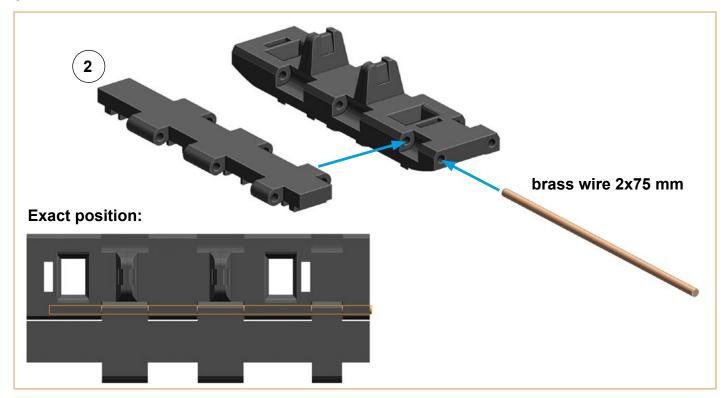
Tracks:

92x

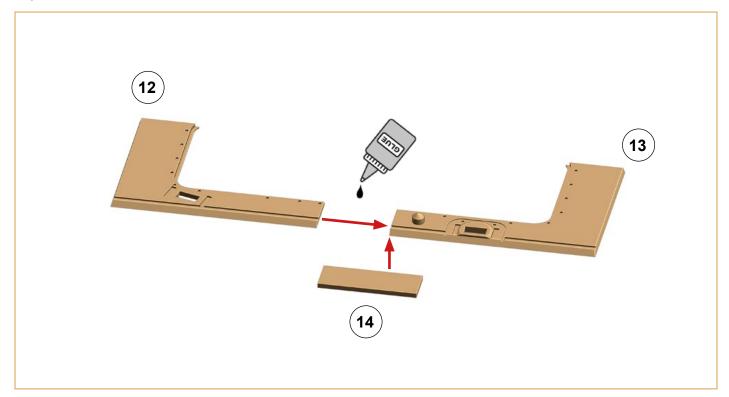


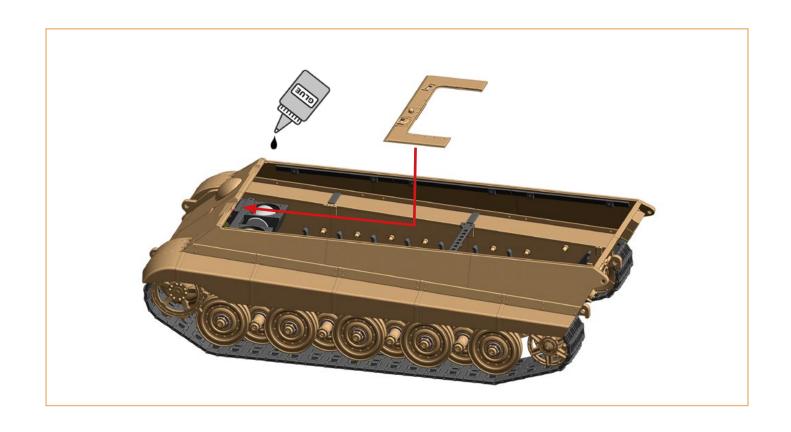
Tracks:

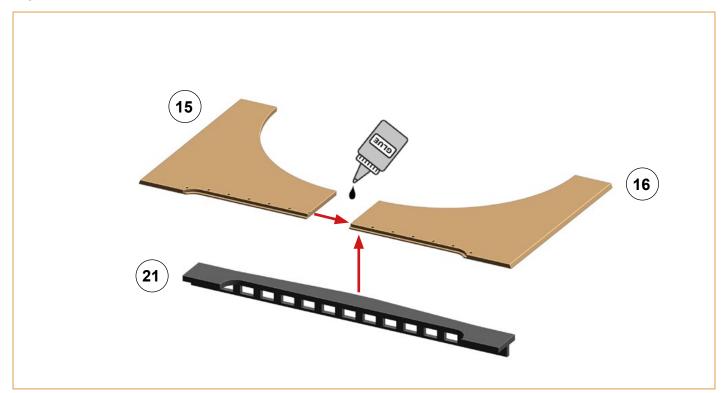
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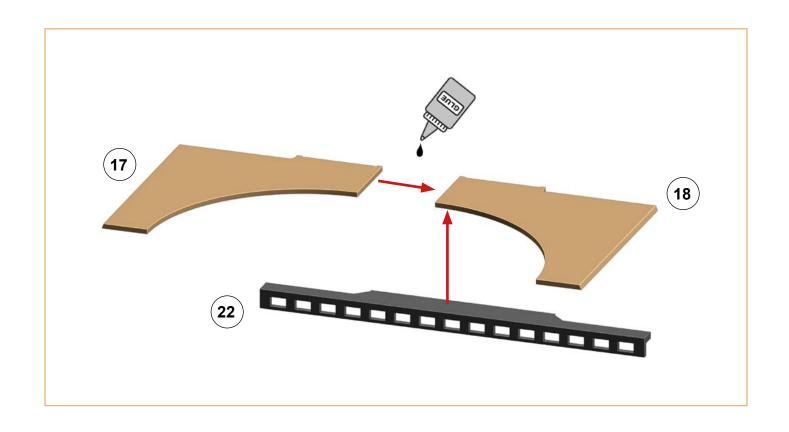




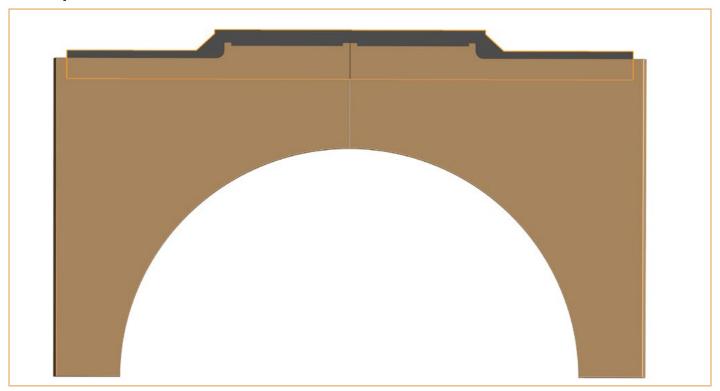


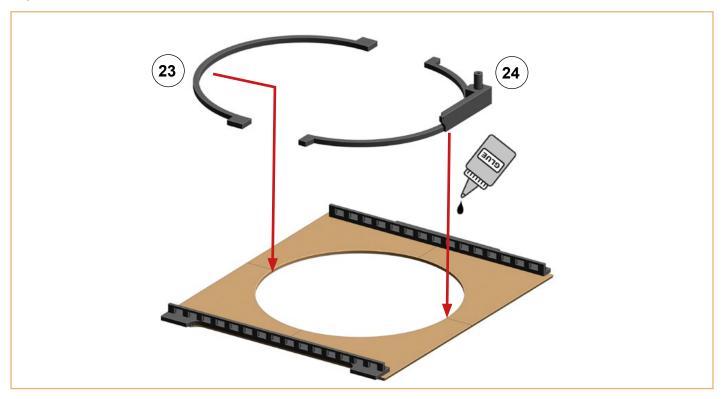




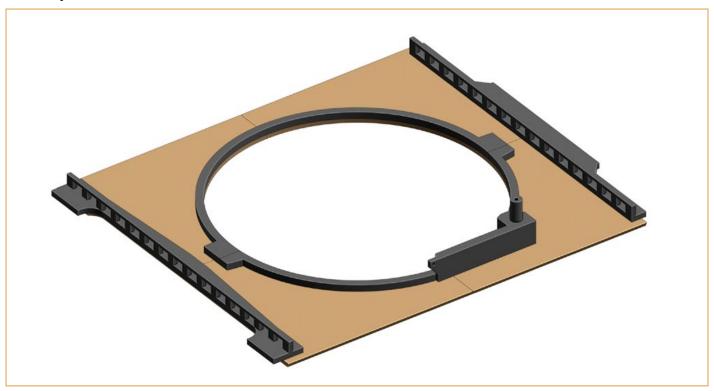


Exact position:

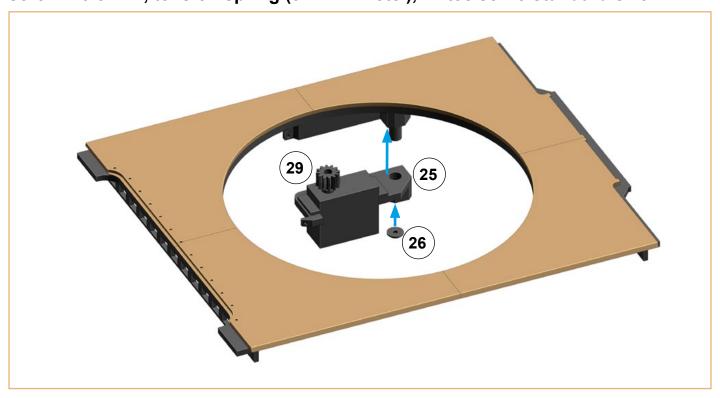




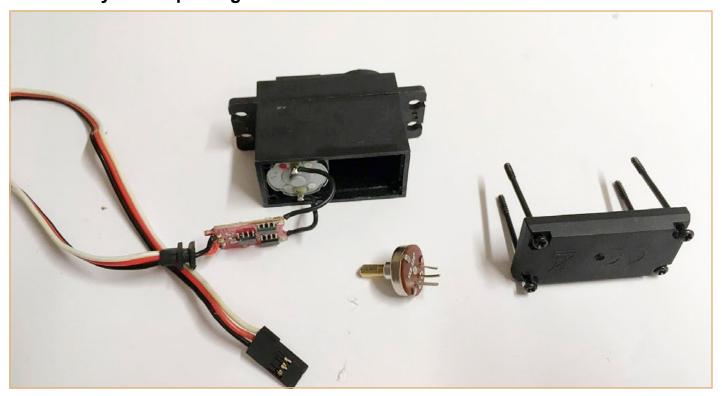
Exact position:



Hull: screw M3 8 mm, tension spring (3x12 mm etc.), Hi-tec servo standard size



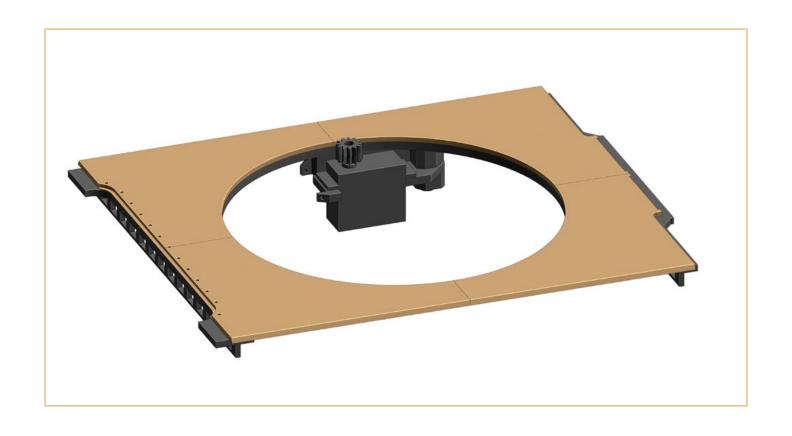
How to make endless servo: replace potentiometer with two resistors 2k7 remove any andstops on gear

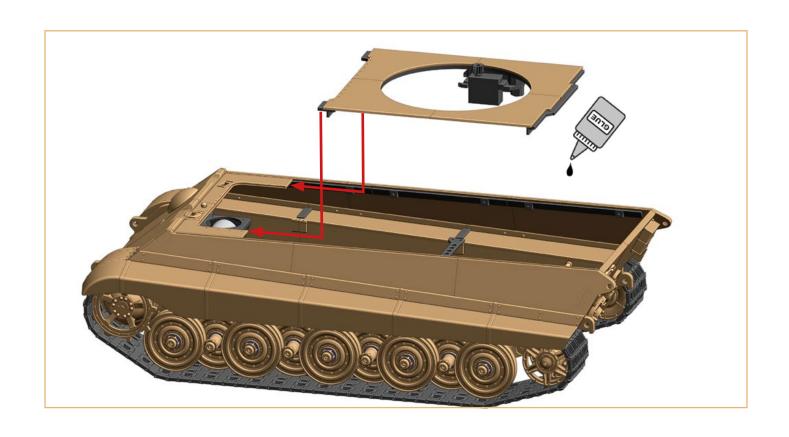


Youtube video:

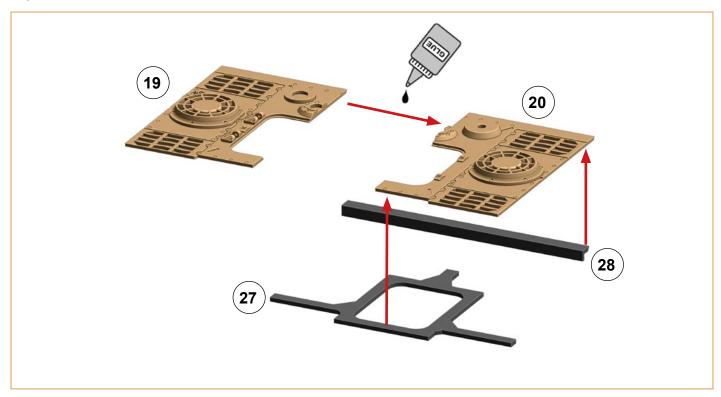
https://youtu.be/6G1nHfvl4al



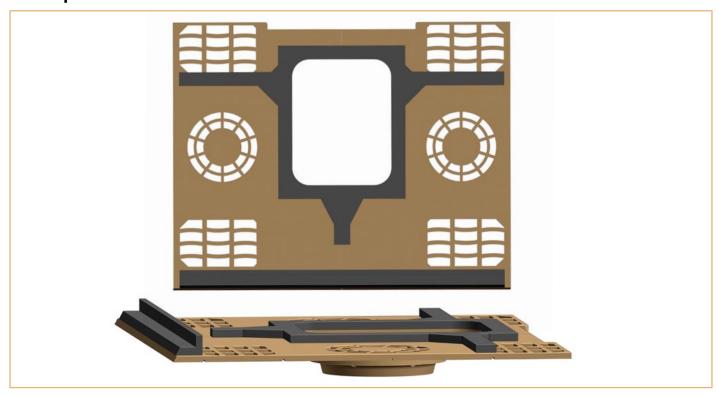




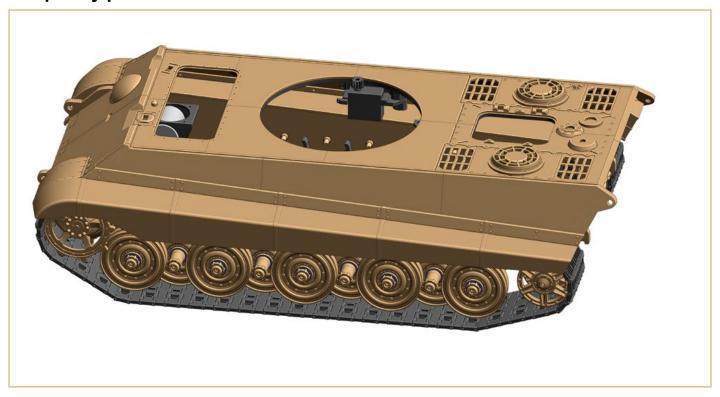
Hull:



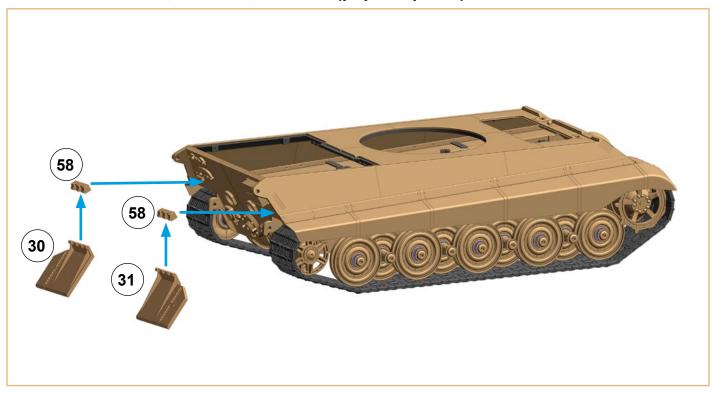
Exact position:



Temporary place of the back cover - it has to be removable:

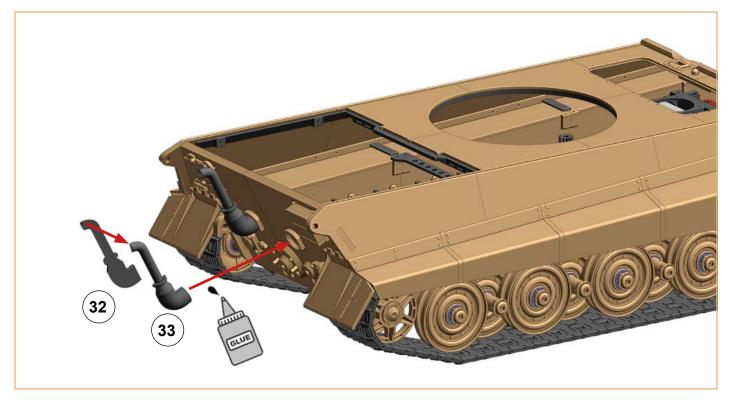


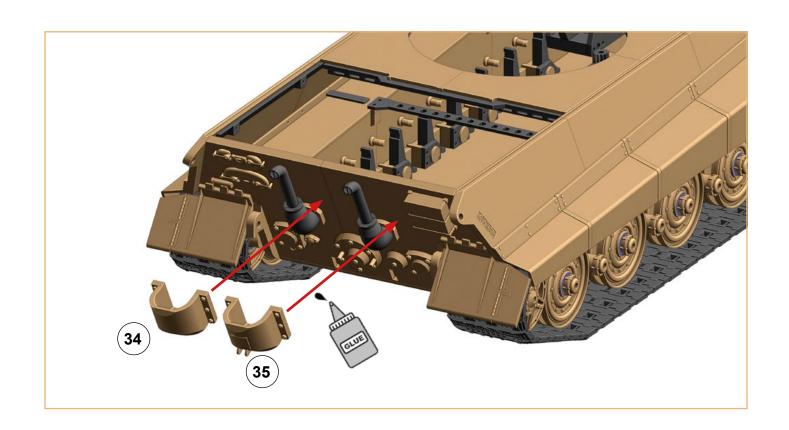
Hull: 4x screw M2 6 mm, 2x rod 1,2x50 mm (paperclip etc.)



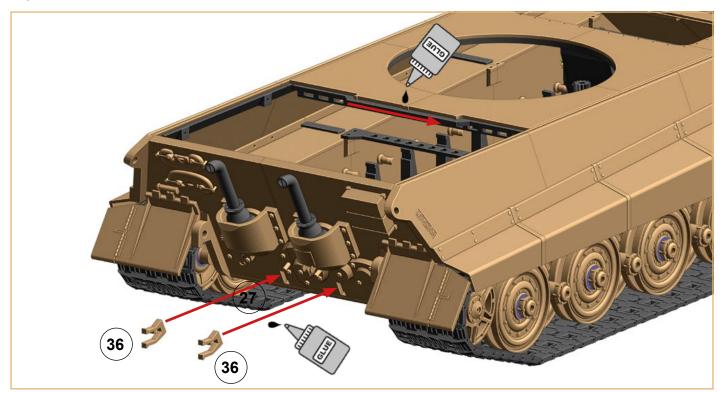
Hull:

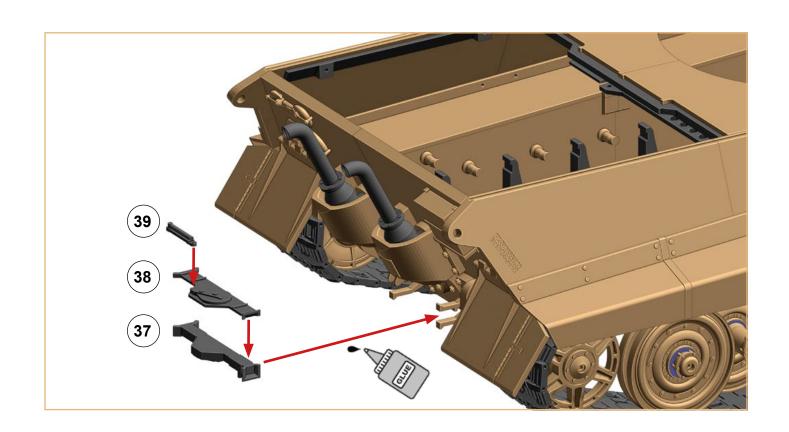
2x



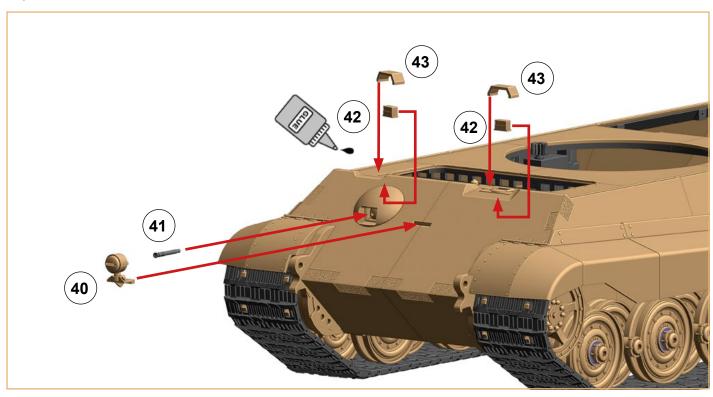


Hull:

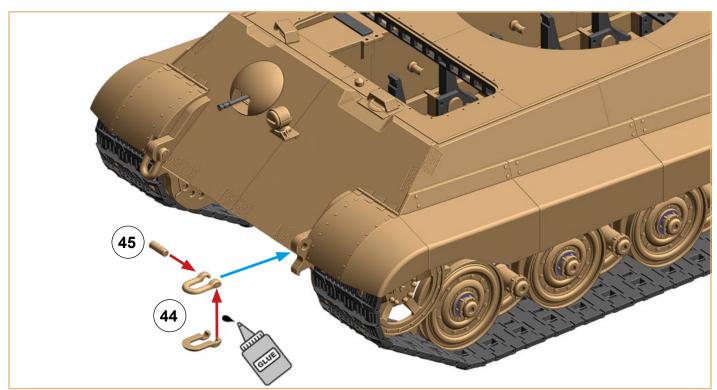




Hull:

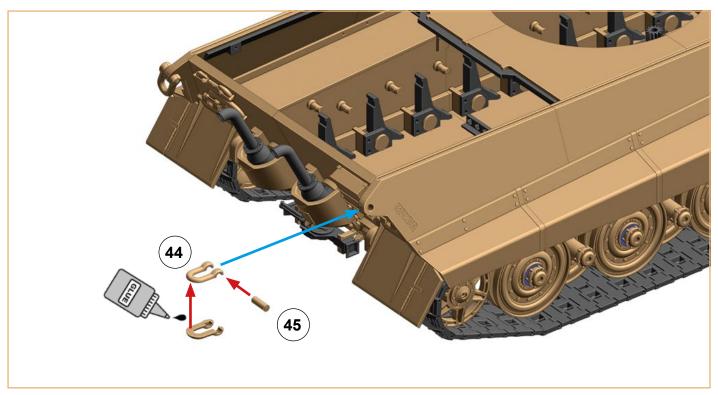


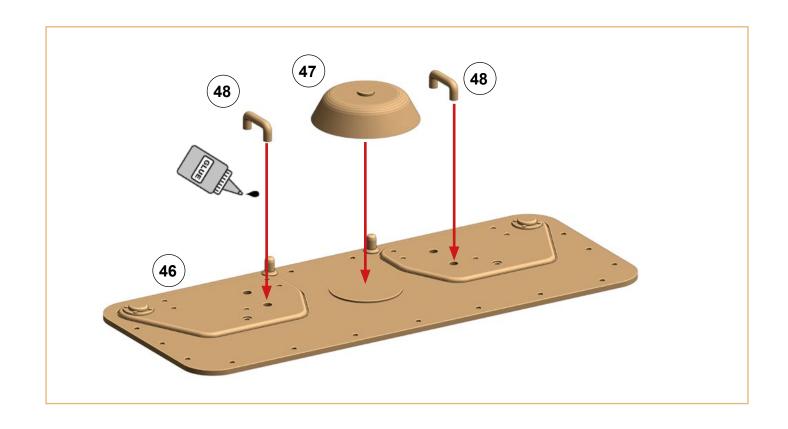
2x



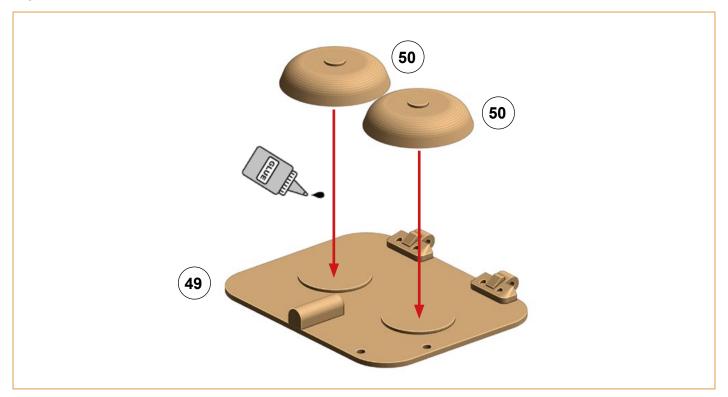
Hull:

2x

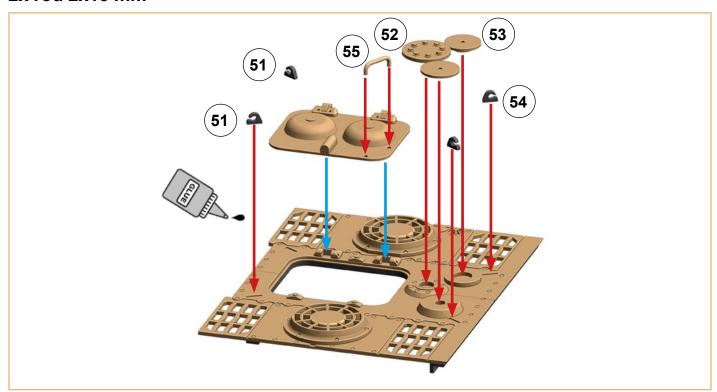




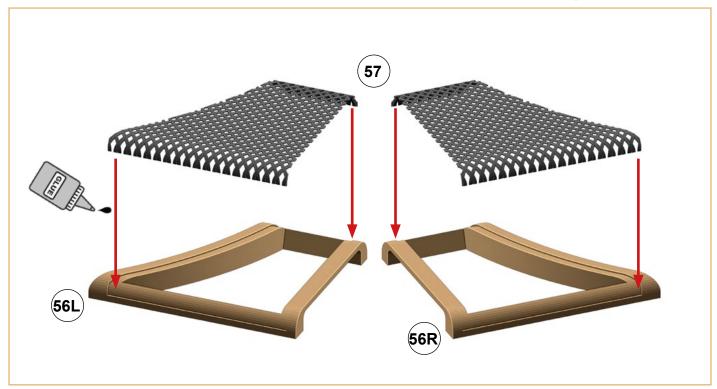
Hull:

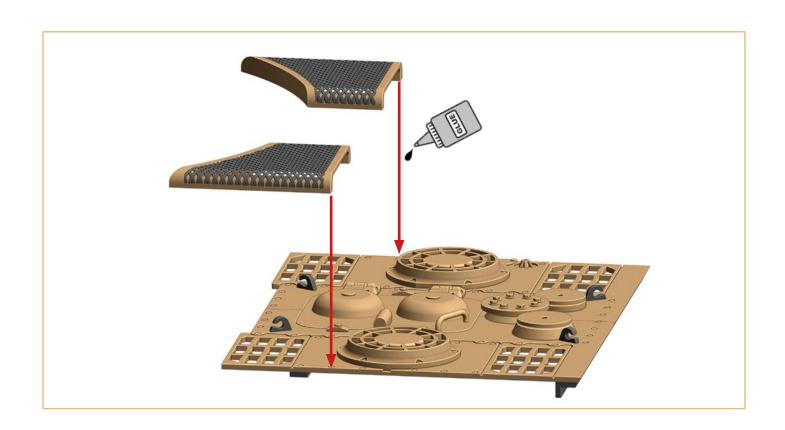


2x rod 2x15 mm

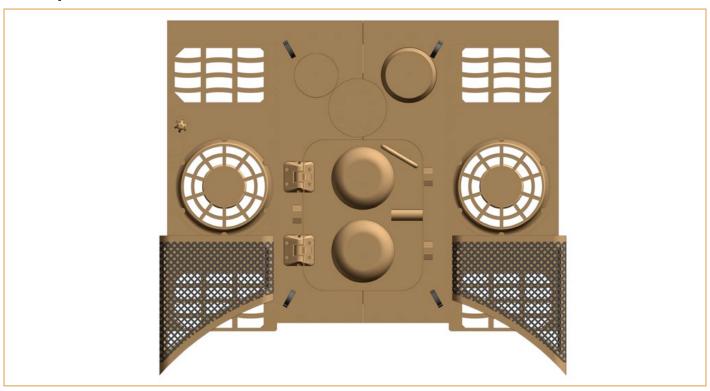


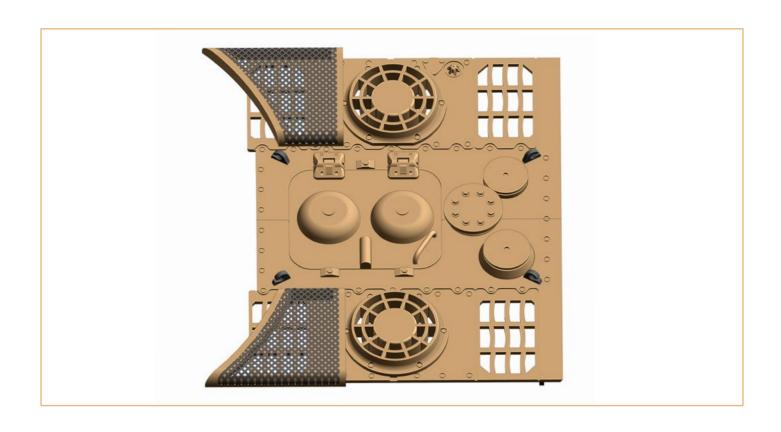
Hull: Print part 57 with 50% infill, 1 perimeter and no top and bottom layers.





Exact position:

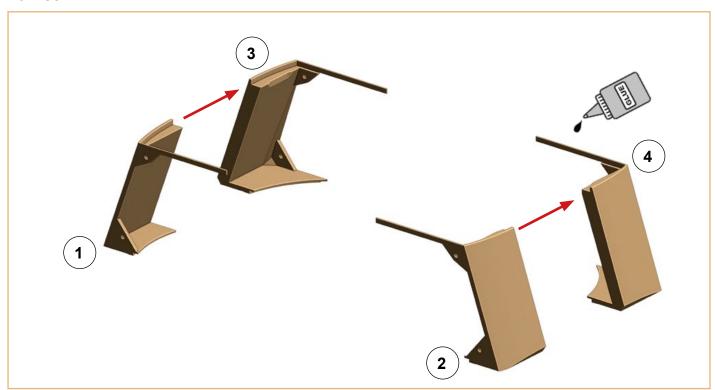




Leave the decks removable:

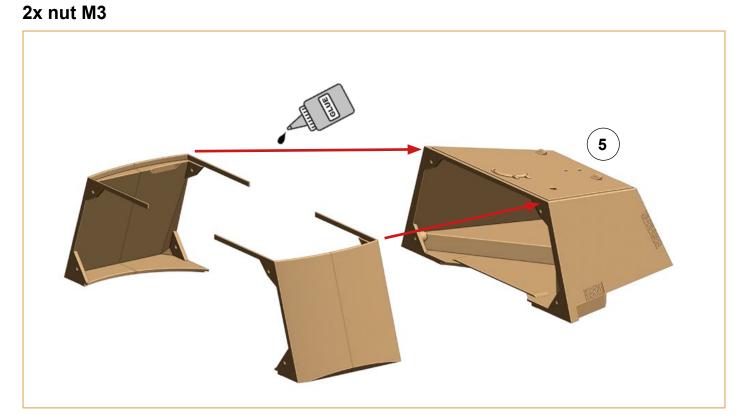


Turret:

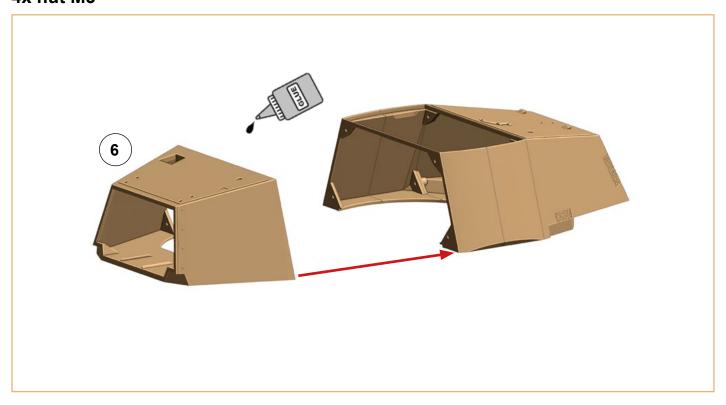


Turret:

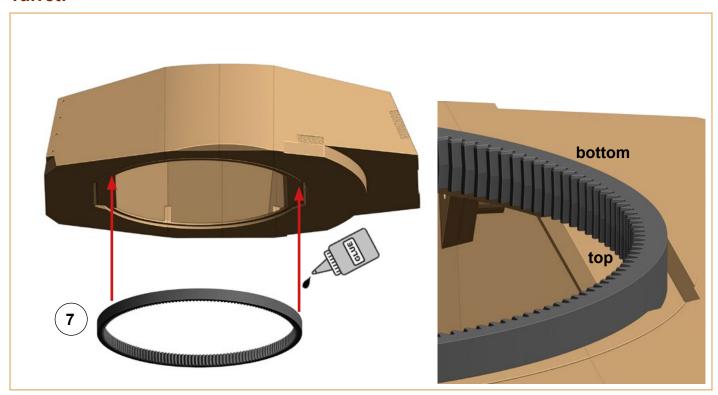
4x screw M3 10 mm

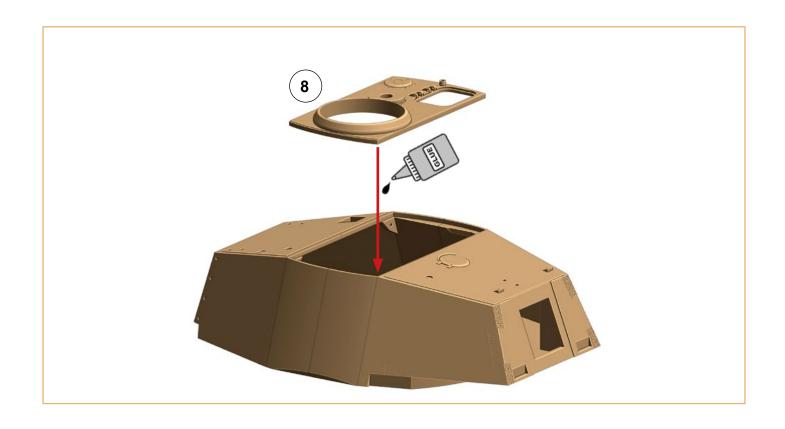


4x screw M3 10 mm 4x nut M3

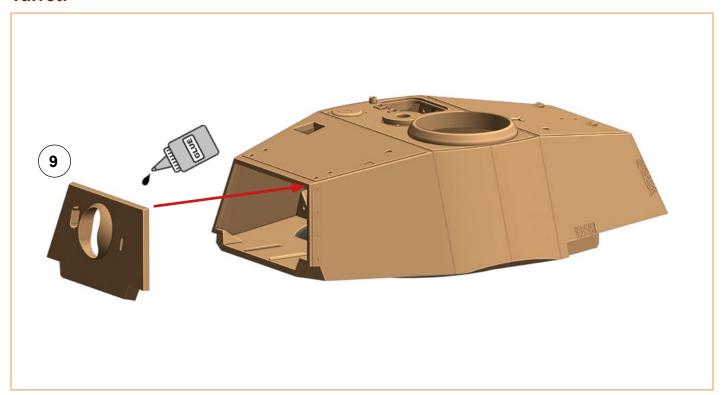


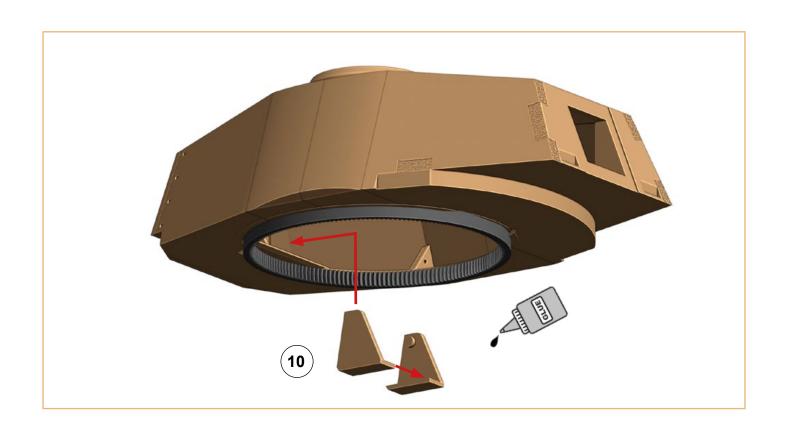
Turret:





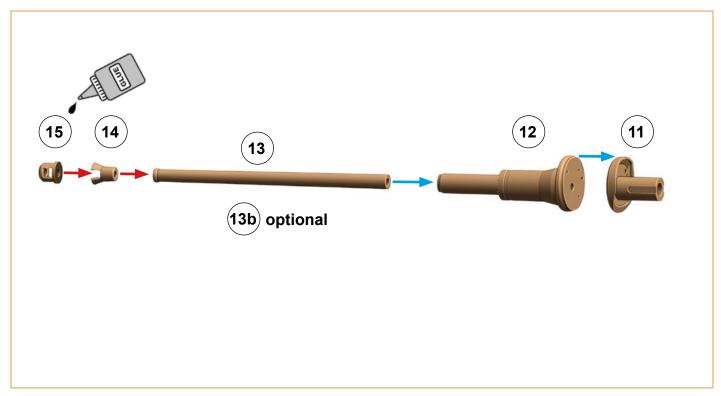
Turret:

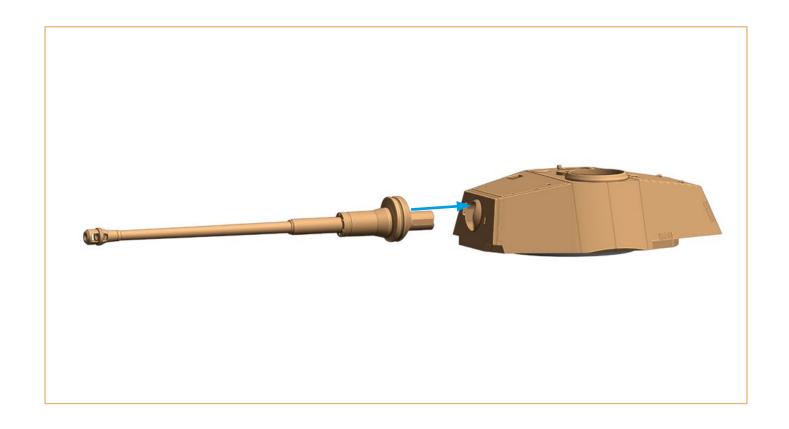




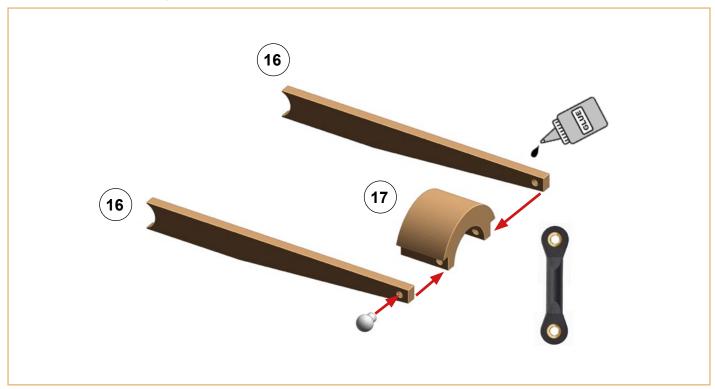
Turret:

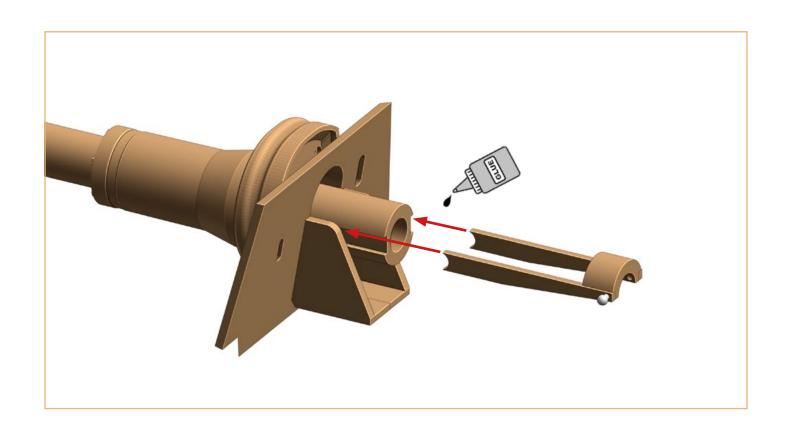
3x screw M3 8 mm





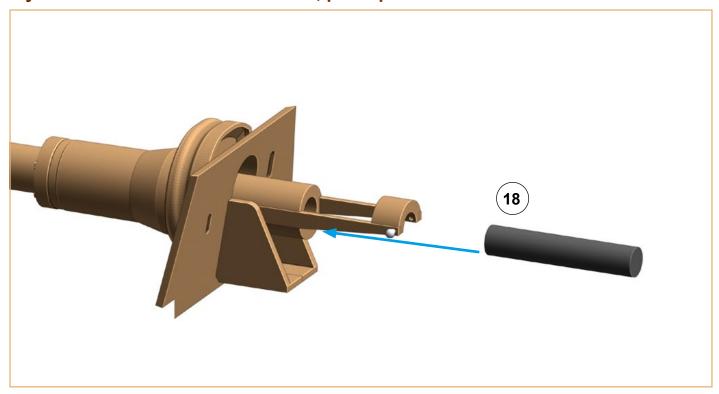
Turret: end ball + endball joint 20 mm



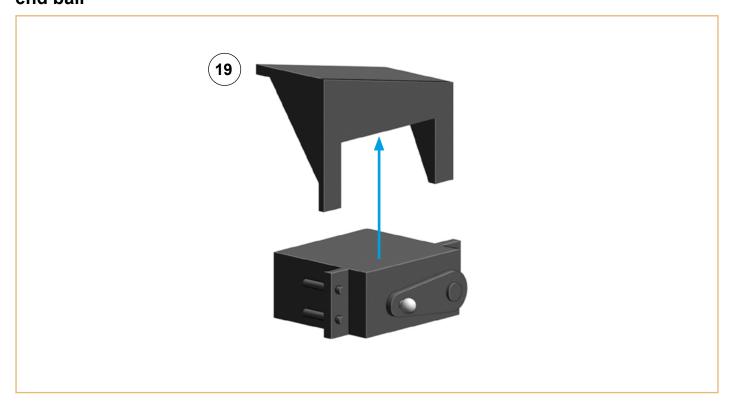


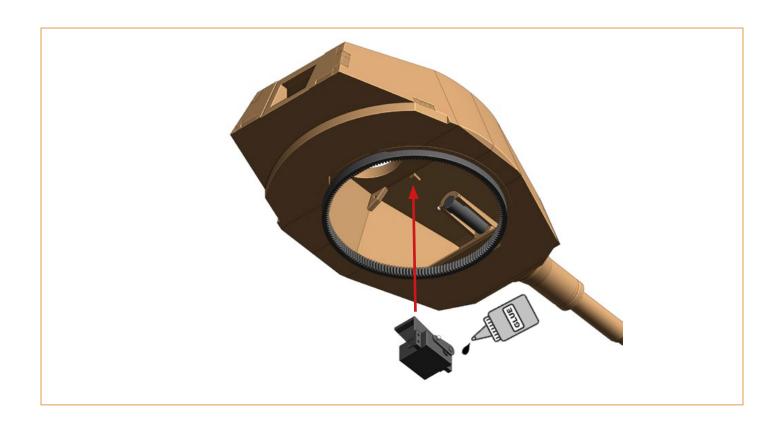
Turret:

If you do not use airsoft mechanics, place part 18 instead.

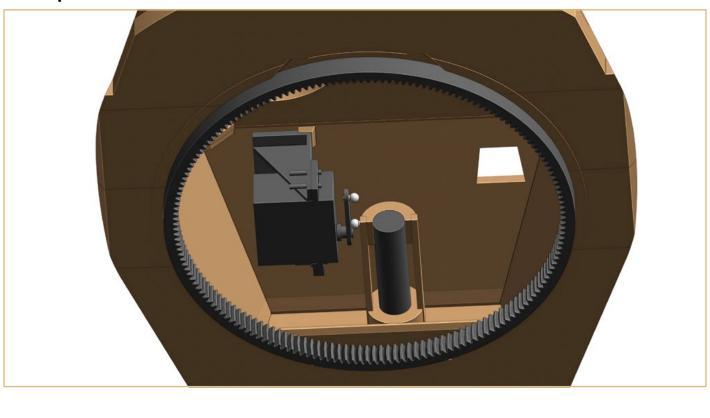


4x screw M2,5 10 mm end ball

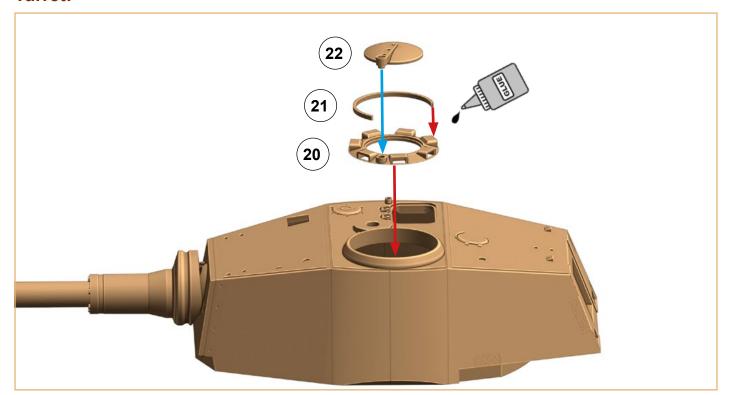


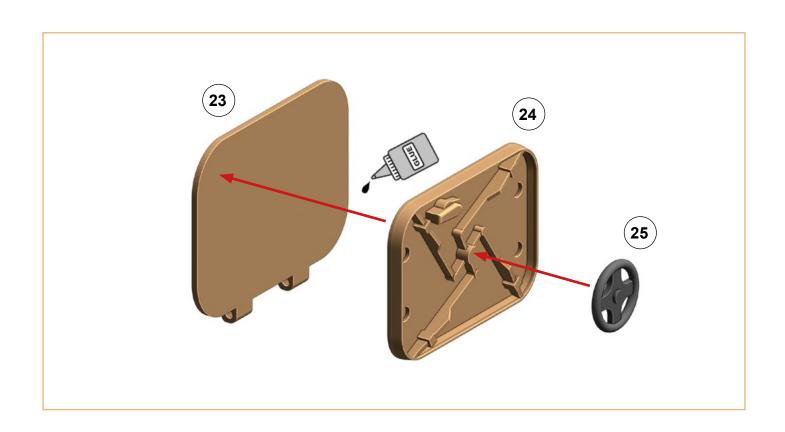


Exact position:



Turret:

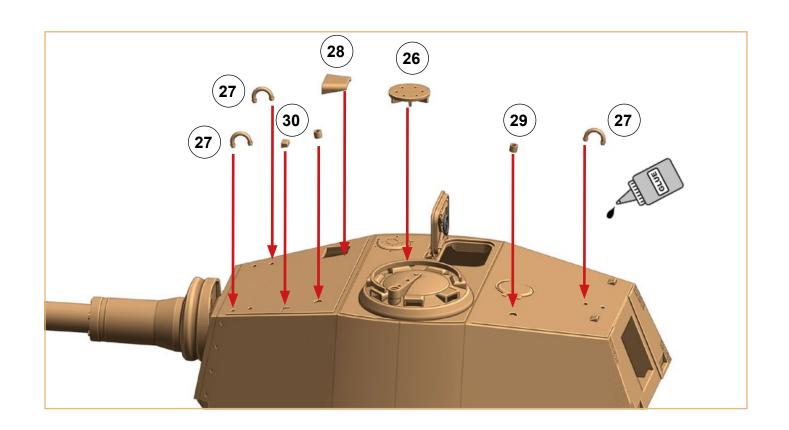




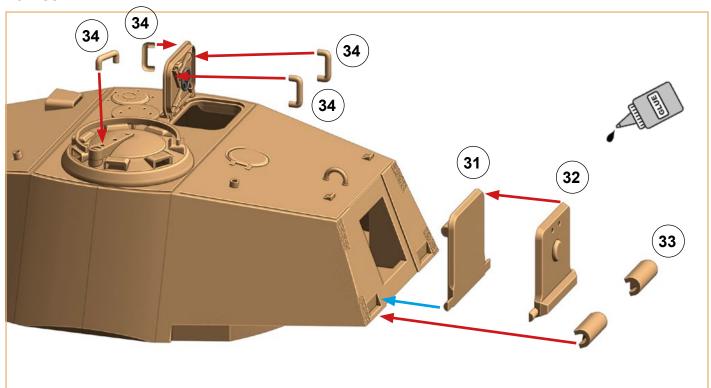
Turret:

2x rod 1,5x10 mm



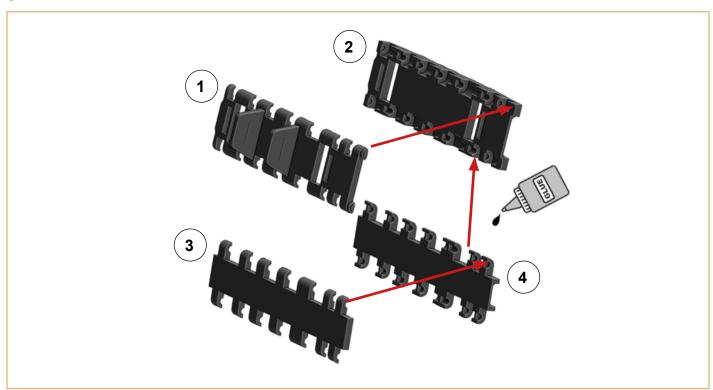


Turret:



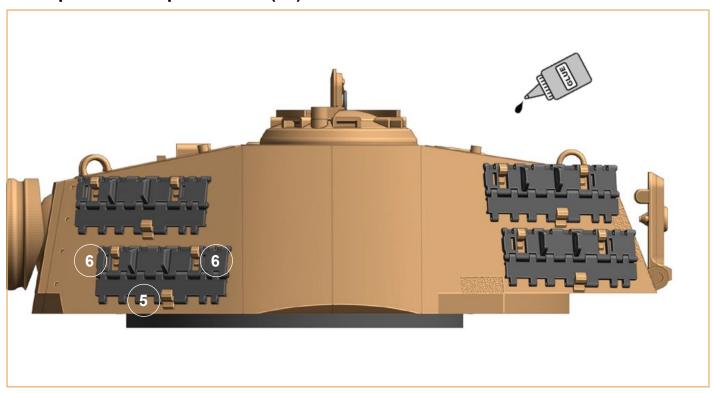
Accessories:

8x

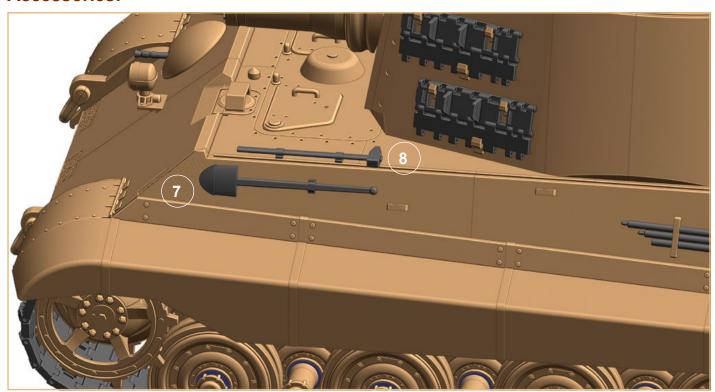


Accessories:

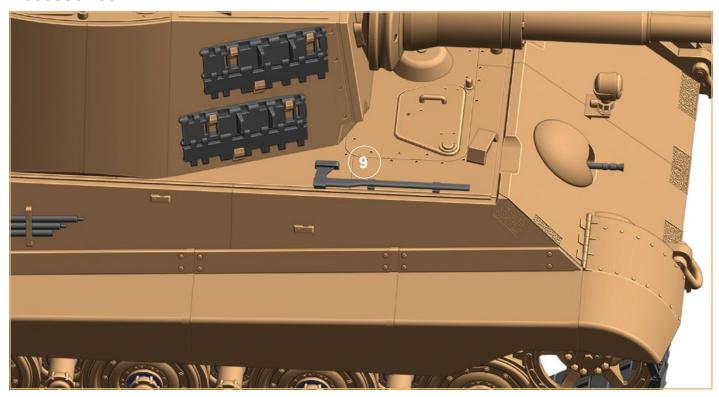
exact position of spare tracks (8x):



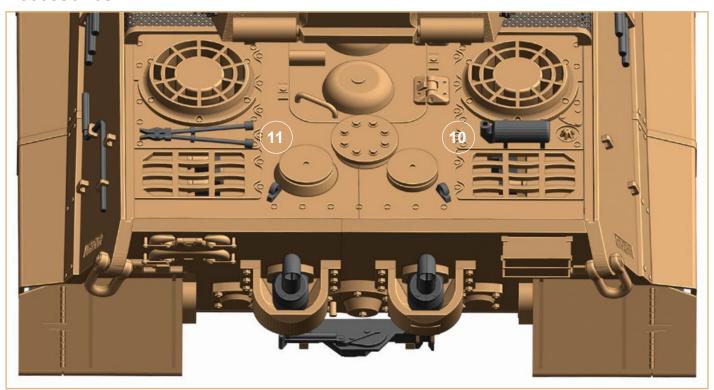
Accessories:



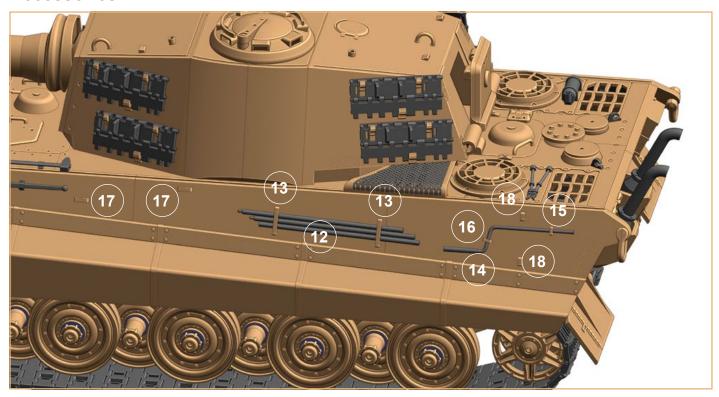
Accessories:



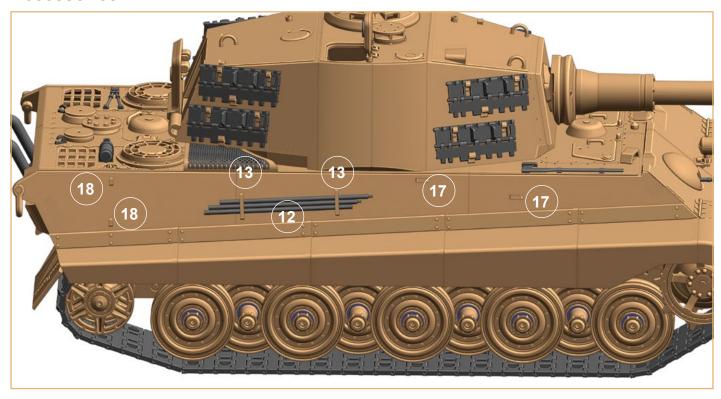
Accessories:



Accessories:



Accessories:



Detail:



