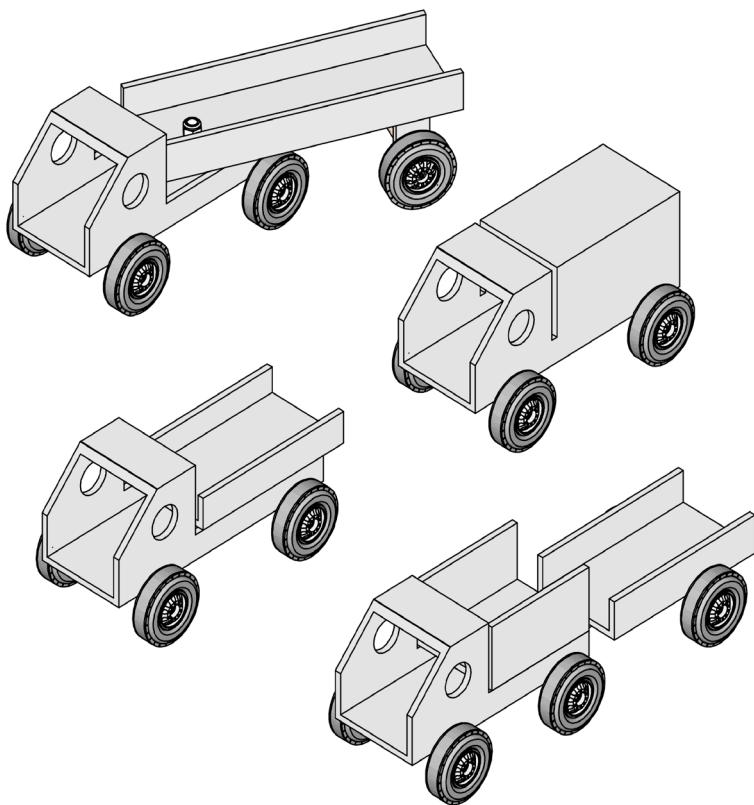
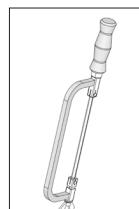


120.461

Aluminium Articulated Truck



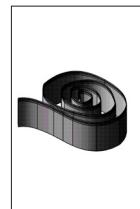
Tools Required:



hacksaw



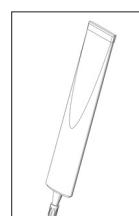
engineer's file



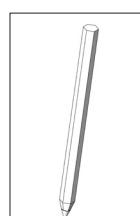
steel wool



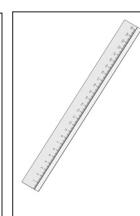
scissors



superglue



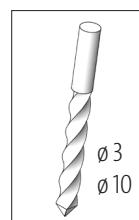
pencil



ruler



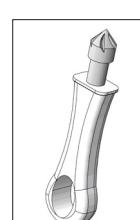
side cutters



metal drill (box column drill)
ø 3
ø 10



centre punch



countersink



wrench



slot screwdriver

Please Note

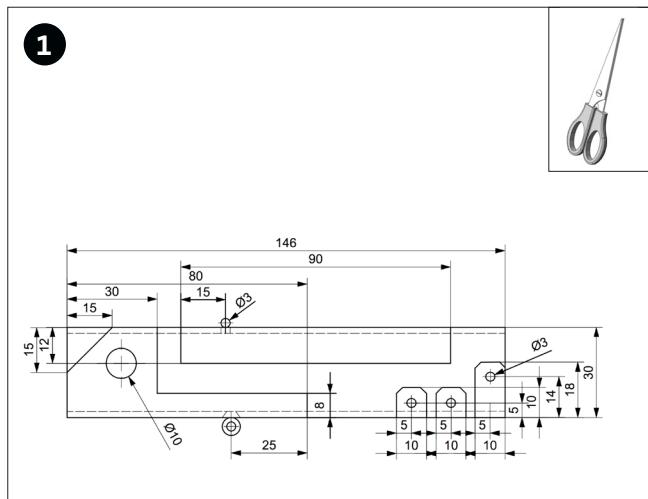
The Opitec Range of projects is not intended as play toys for young children. They are teaching aids for young people learning the skills of craft, design and technology. These projects should only be undertaken and operated with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation!

Parts List	Quantity	Size (mm)	Designation	Parts No.
aluminium square tube	1	146x30/2	truck/semitrailer/axle holder	1
welding wire	1	ø2x200	axes	2
countersunk head screw	1	ø3x16	mounting trailer	3
washer	2	ø7/3,2	washer	4
nut	2	M3	attachment	5
cap nut	1	M3	attachment	6
tyres	6	ø21	pneumatic tyres	7
rim for tyres	6	ø10	rims	8

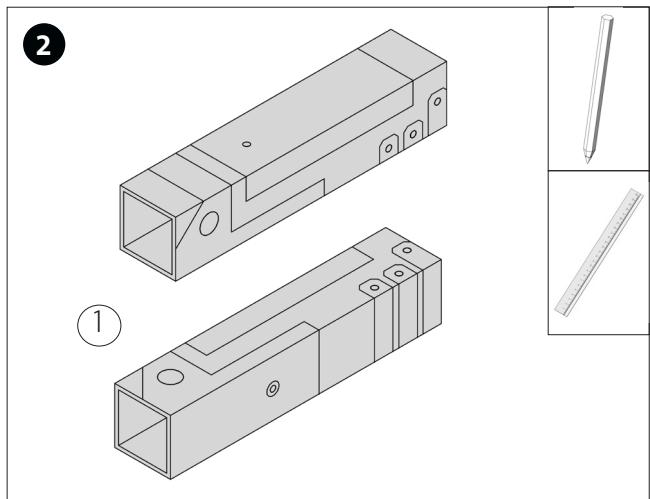
Building Instruction 120.461

Aluminium Articulated Truck

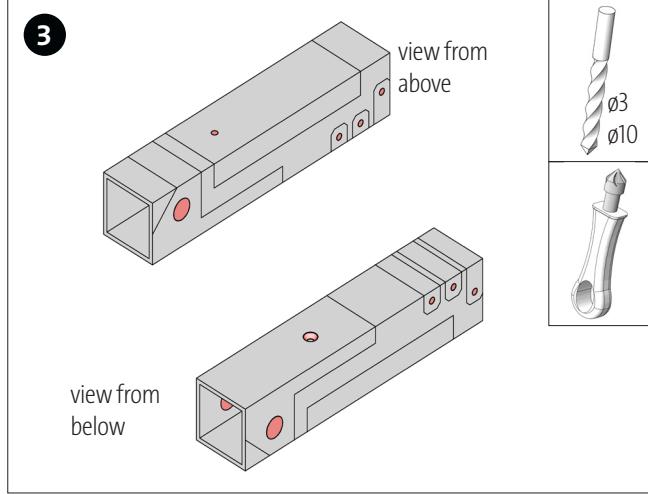
Construction Variant 1:



Cut out the template for variant (1) (page 10).

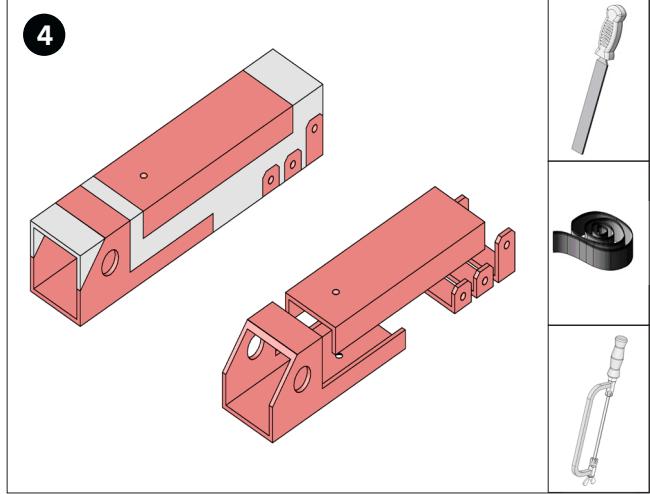


Transfer the dimensions of the template to the aluminum quad tube (1) as shown.

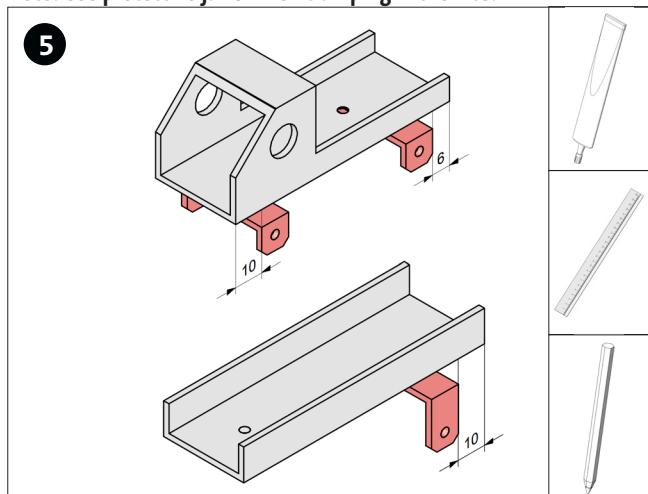


Drill through all holes. Countersink the hole on the underside of the tractor unit to \varnothing 6 mm as shown.

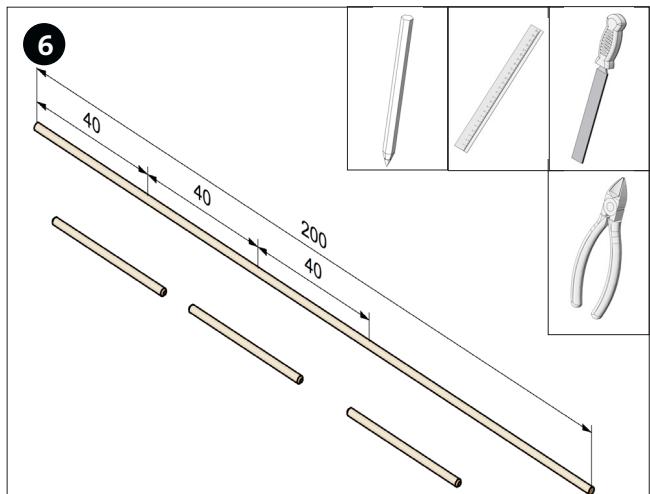
Note: Use protective jaws when clamping in the vice!



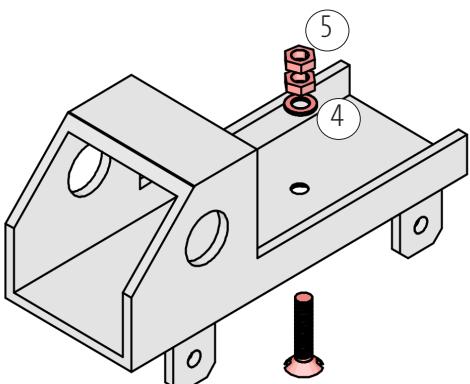
Saw out all individual parts as shown. Deburr saw cuts. Then polish all parts with steel wool.



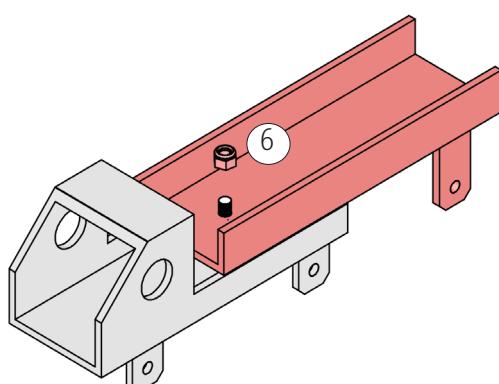
Glue the axle holders with superglue as shown. Note the dimensions for the correct position!



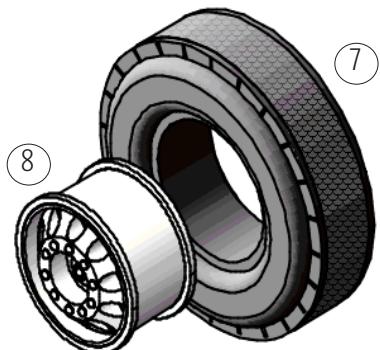
Cut three 40 mm long pieces from the welding wire (2). Deburr the ends with the workshop file.

Building Instruction 120.461**Aluminium Articulated Truck****Construction Variant 1:****7**

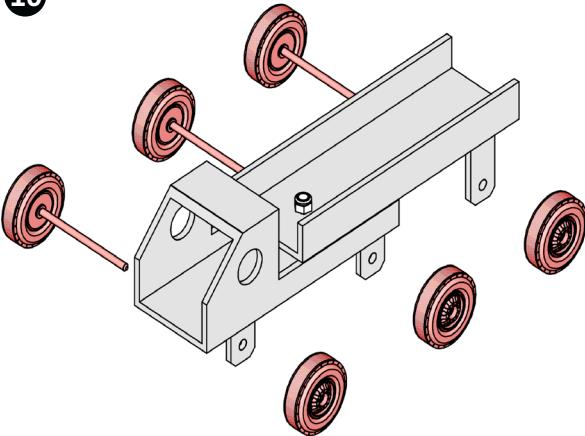
Insert the countersunk screw (3) from below into the hole in the tractor. Attach a washer (4) from above and screw on two nuts (5) and lock them.

8

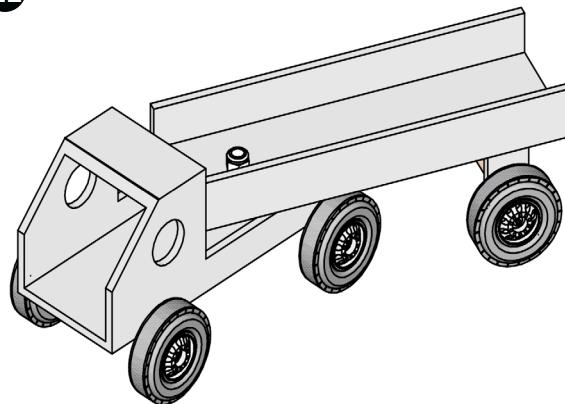
Attach the support and fix it from above with the cap nut (6).

9

Press the rim for the tyres into the tyre as shown. Assemble the tyres in this way.

10

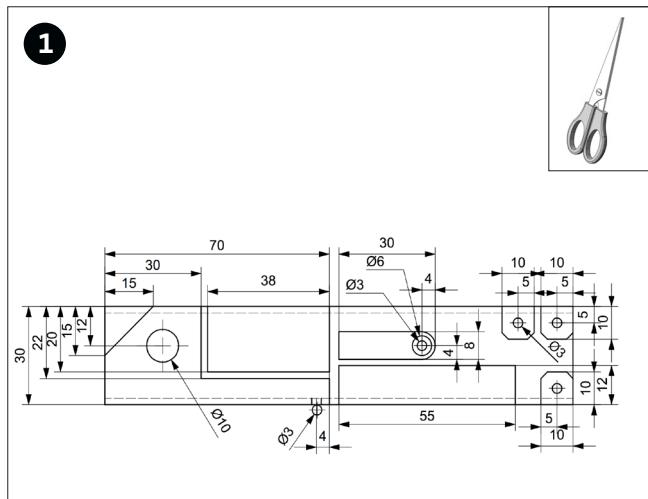
Put three tyres (7) on the three axles (2). Then push them through the axle carriers and fit one wheel each from the other side.

11

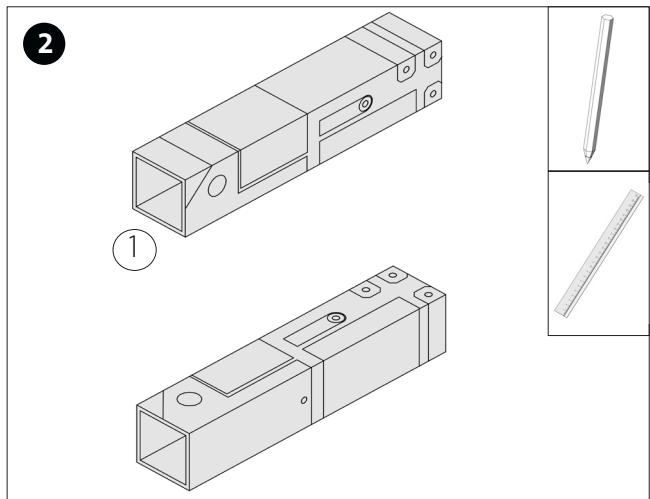
Finished!

Building Instruction 120.461 Aluminium Articulated Truck

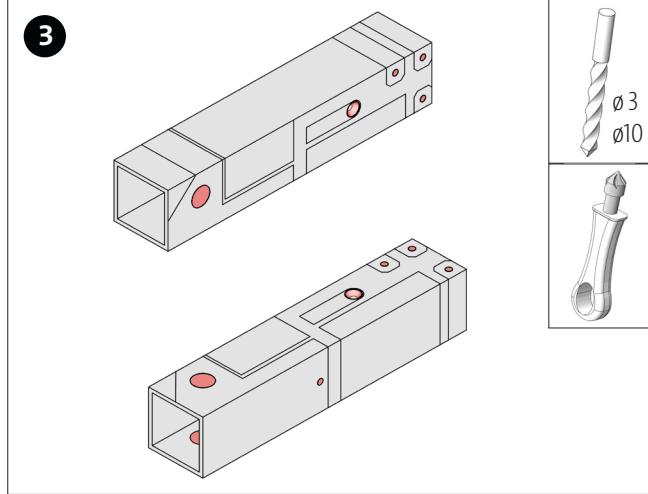
Construction Variant 2:



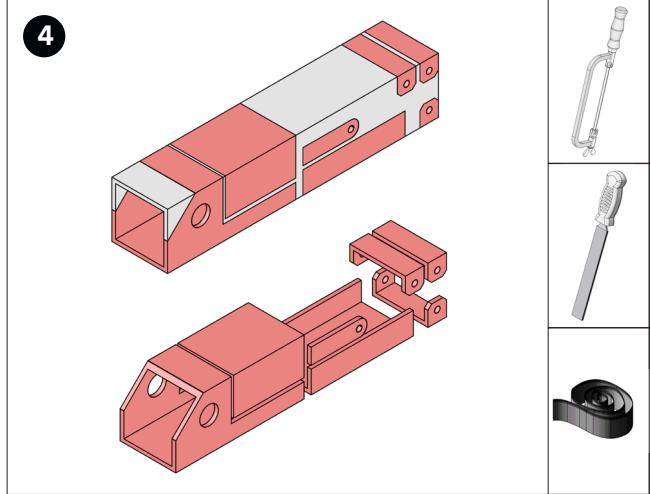
Cut out the template for variant (2) (page 10).



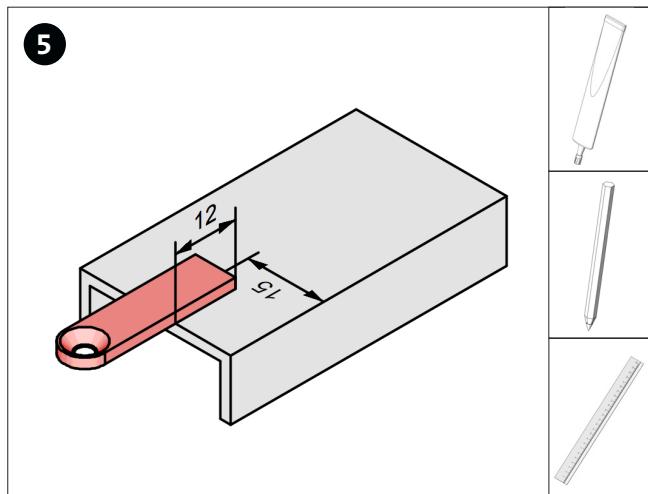
Transfer the dimensions of the template to the aluminum quad tube (1) as shown.



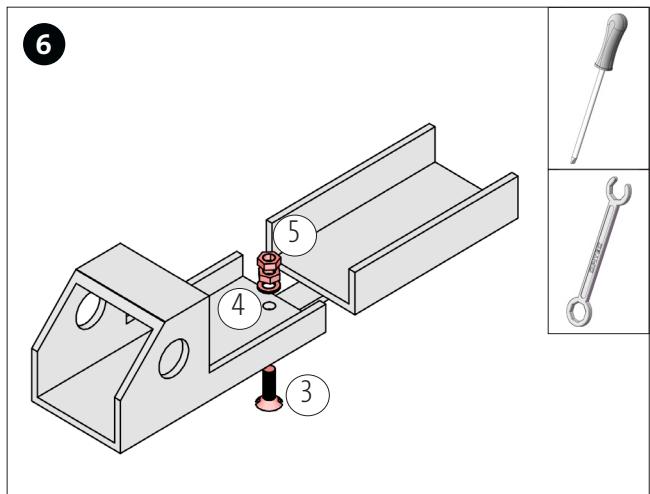
Drill through all holes. Countersink the hole on the side for the trailer coupling to \varnothing 6mm as shown.



Saw out all individual parts as shown. Deburr saw cuts. Then polish all parts with steel wool.



Glue the trailer coupling centered on the underside of the trailer as shown above. The countersunk hole points upwards.

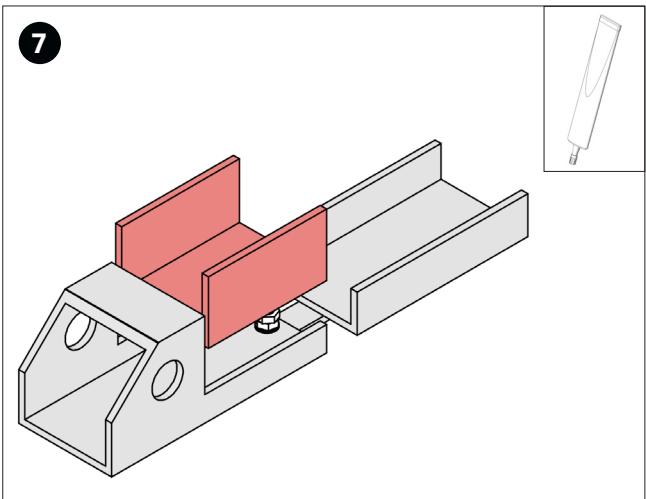


Now fasten the trailer to the tractor with the countersunk screw (3) and the nuts (5) as shown.

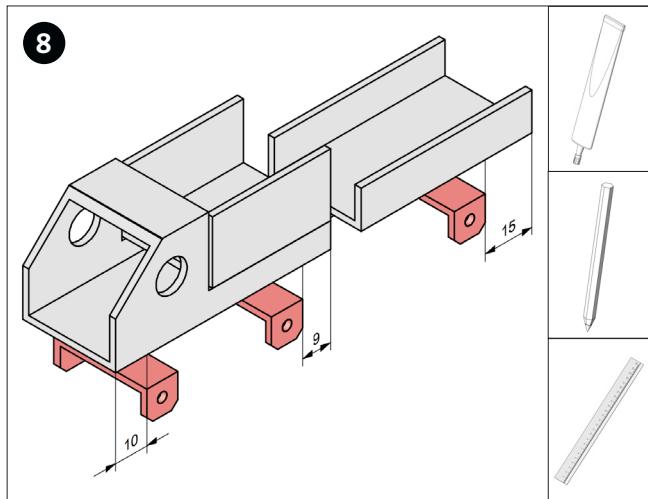
Building Instruction 120.461

Aluminium Articulated Truck

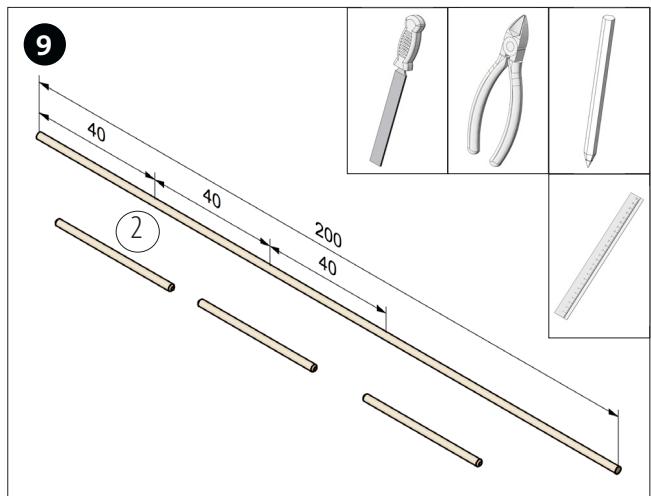
Construction Variant 2:



Stick the tractor body flush with the rear edge as shown.



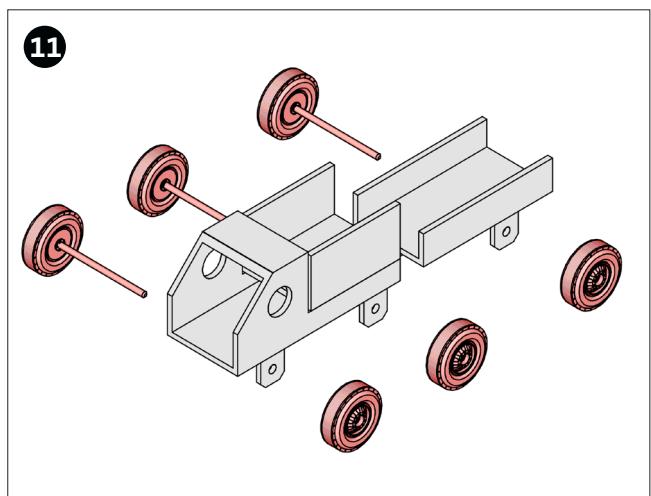
Glue the axle holders according to the dimensions shown above.



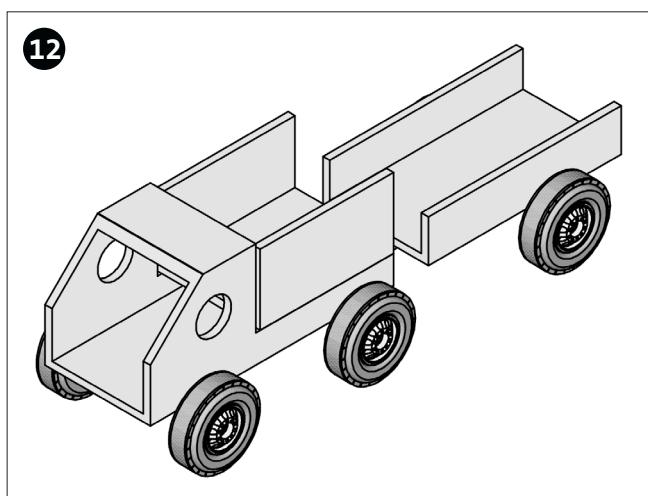
Cut three 40 mm long pieces from the welding wire (2). Deburr the ends with the workshop file.



Press the rim for the tyres into the tyre as shown. Assemble the tyres in this way.



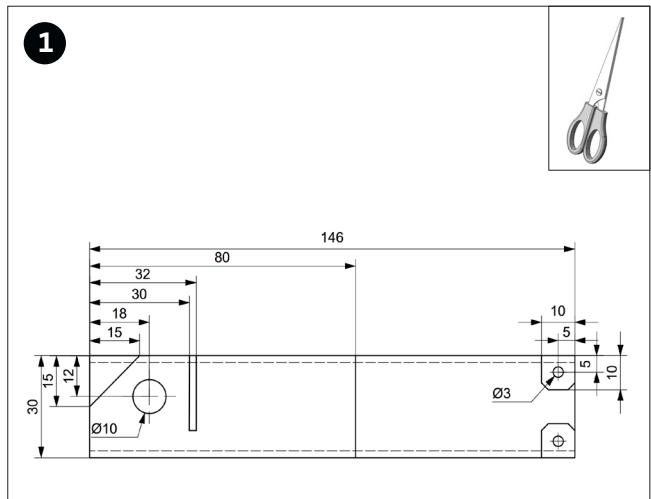
Put three tyres (7) on the three axles (2). Then push them through the axle carriers and fit one wheel each from the other side.



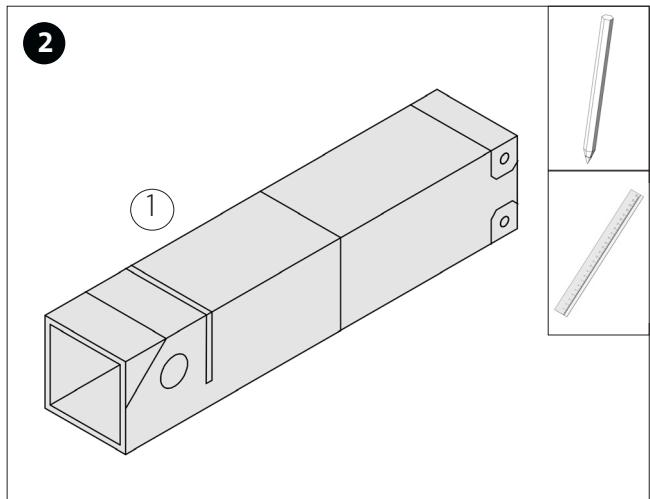
Finished!

Building Instruction 120.461 Aluminium Articulated Truck

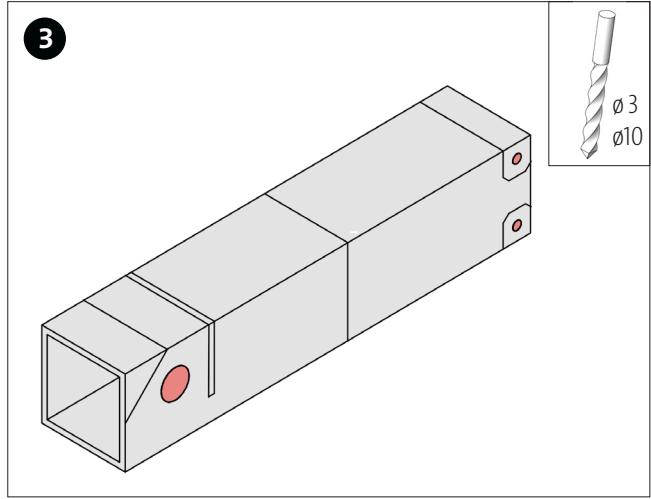
Construction Variant 3:



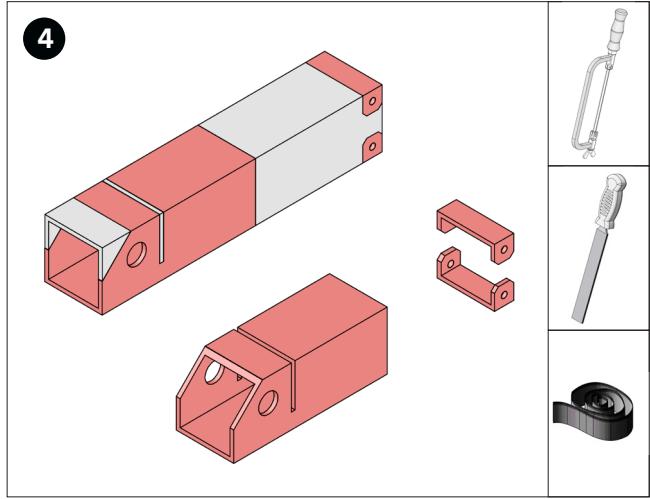
Cut out the template for variant (3) (page 11).



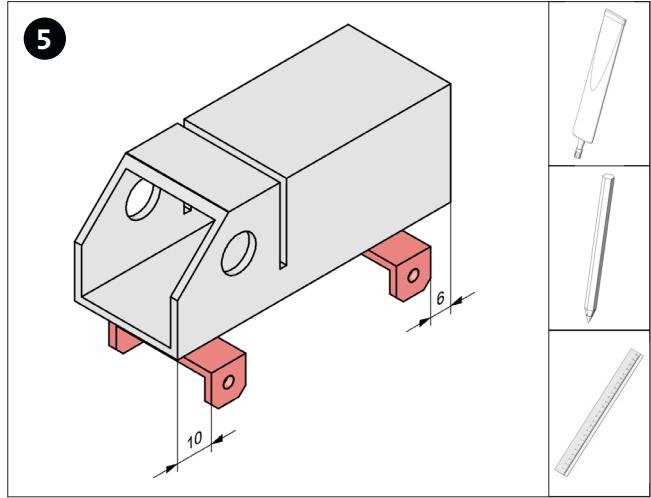
Transfer the dimensions of the template to the aluminum quad tube (1) as shown.



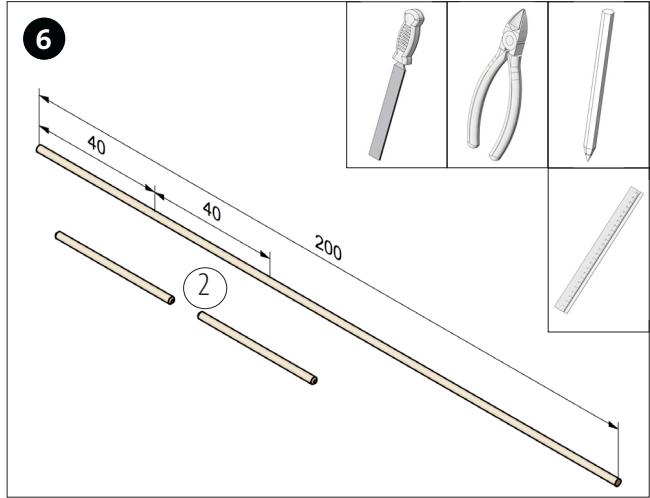
Drill through all holes.



Saw out all individual parts as shown. Deburr saw cuts. Then polish all parts with steel wool.



Glue the axle holders as shown according to dimensions.



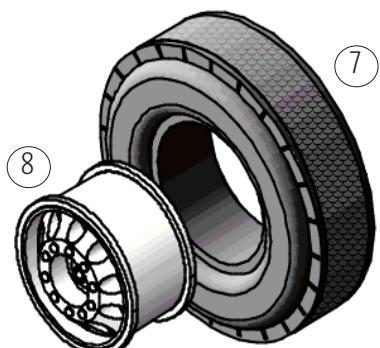
Cut two 40 mm long pieces from the welding wire (2). Deburr the ends with the workshop file.

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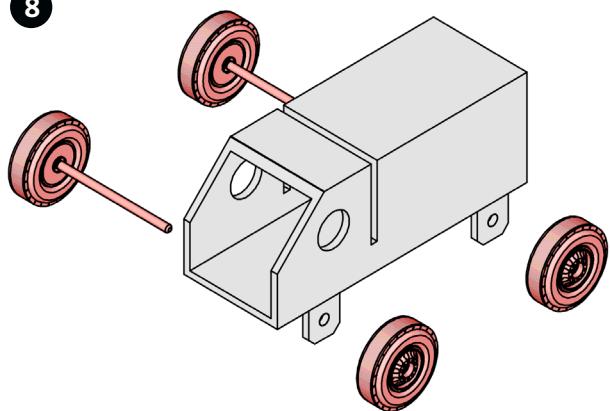
Aluminium Articulated Truck

Construction Variant 3:

7



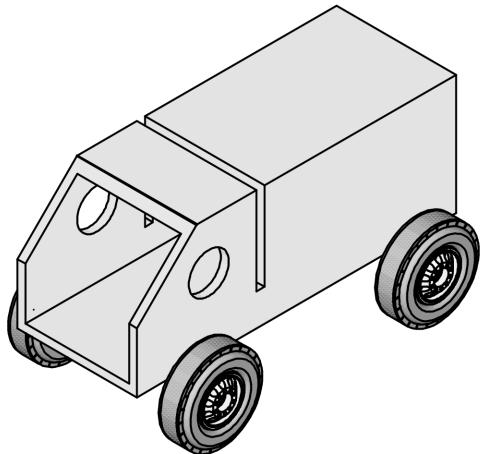
8



Press the rim for the tyres into the tyre as shown. Assemble the tyres in this way.

Put three tyres (7) on the three axles (2). Then push them through the axle carriers and fit one wheel each from the other side.

9

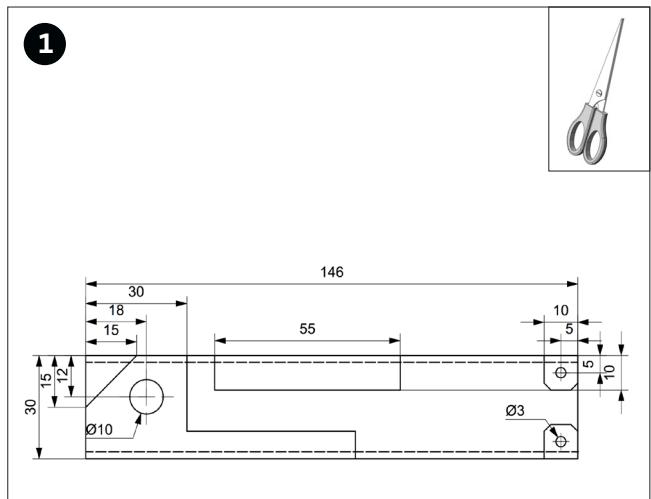


Finished!

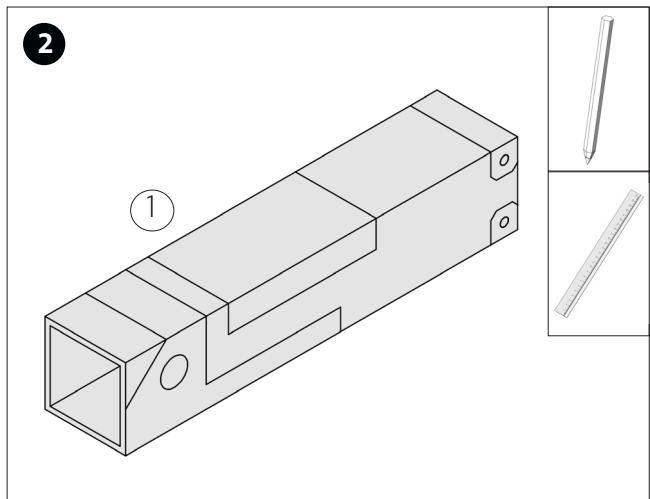
Building Instruction 120.461

Aluminium Articulated Truck

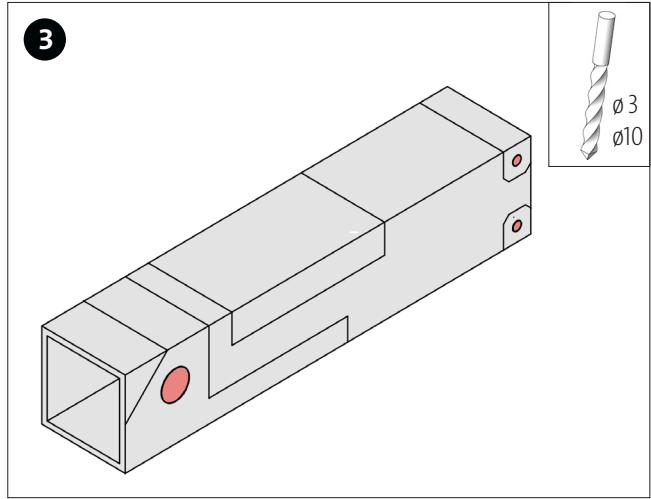
Construction Variant 4:



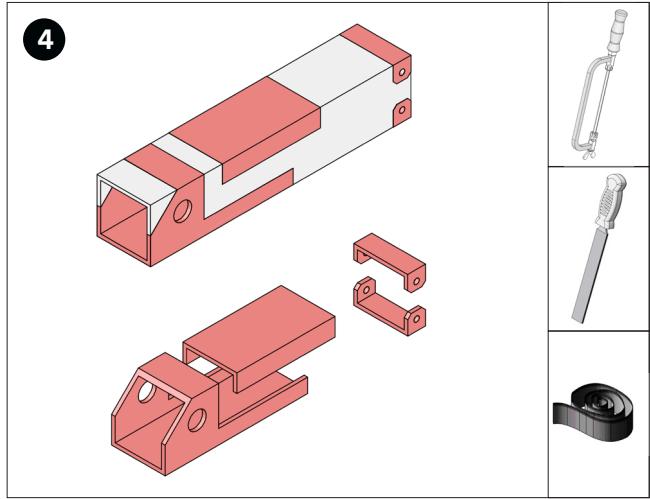
Cut out the template for variant (4) (page 11).



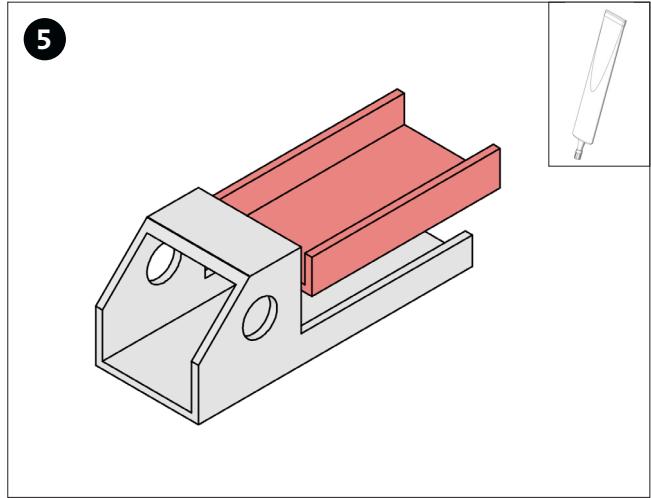
Transfer the dimensions of the template to the aluminum quad tube (1) as shown.



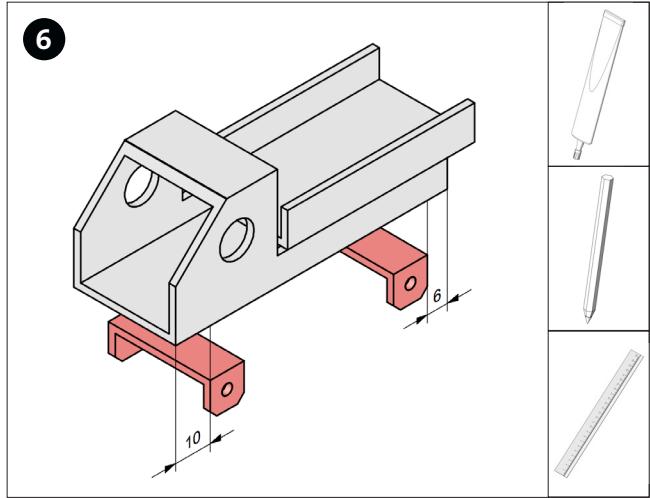
Drill through all holes.



Saw out all individual parts as shown. Deburr saw cuts. Then polish all parts with steel wool.



Glue the trailer with superglue as shown.

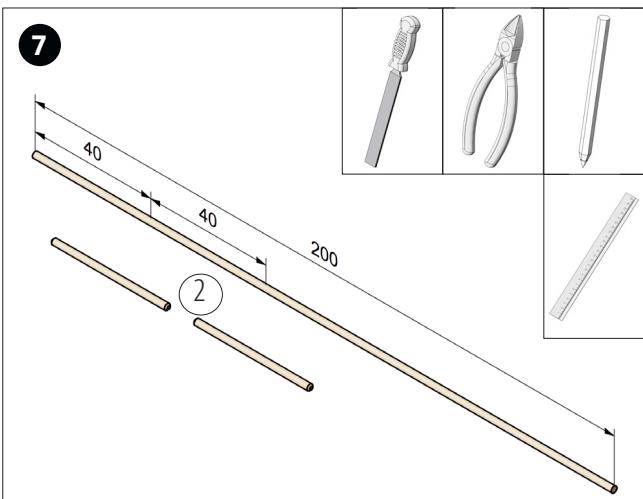


Glue the axle holders as shown according to dimensions.

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Aluminium Articulated Truck

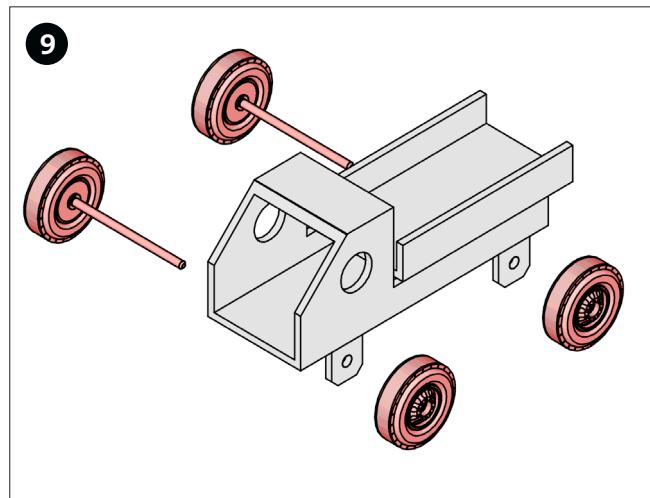
Construction Variant 4:



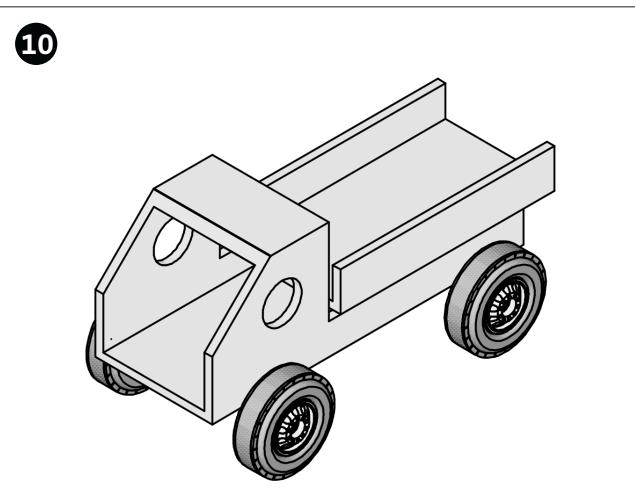
Cut two 40 mm long pieces from the welding wire (2). Deburr the ends with the workshop file.



Press the rim for the tyres into the tyre as shown. Assemble the tyres in this way.



Put three tyres (7) on the three axles (2). Then push them through the axle carriers and fit one wheel each from the other side.



Finished!

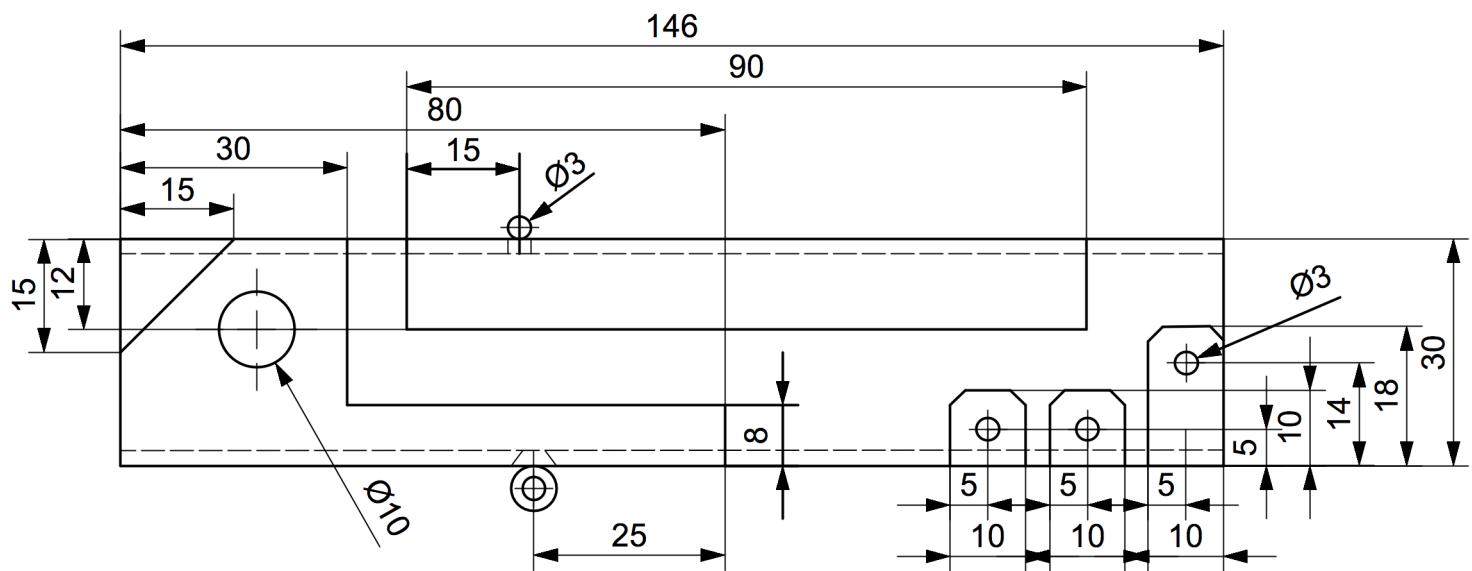
Building Instruction 120.461

Aluminium Articulated Truck

Templates Variants 1-4

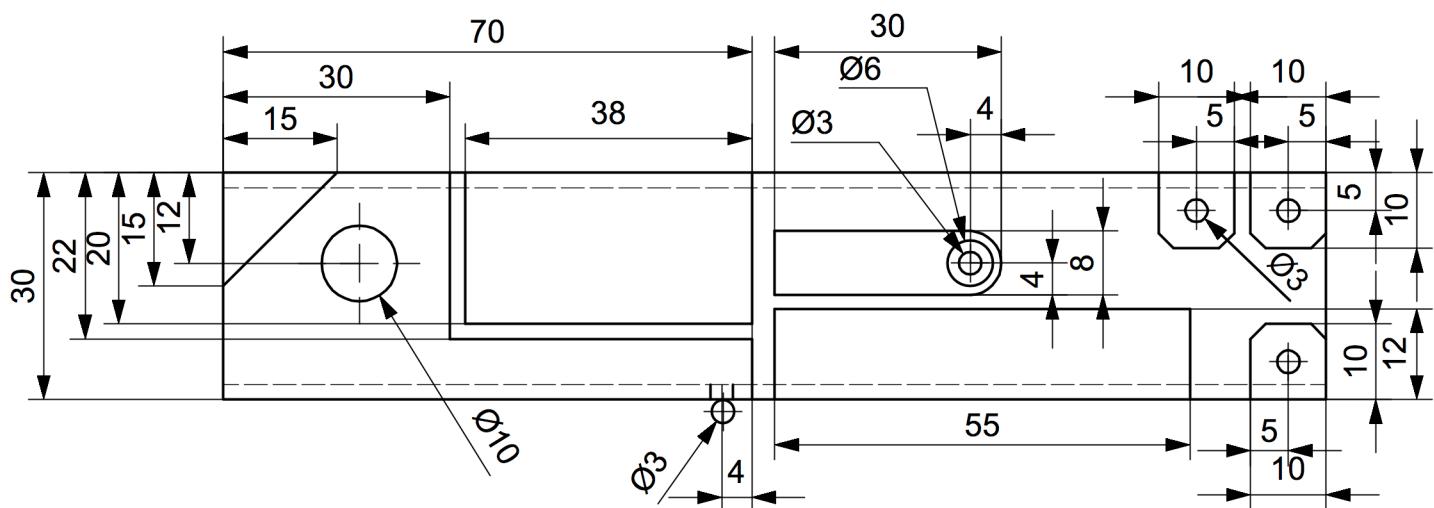
Template Variant 1

S1:1



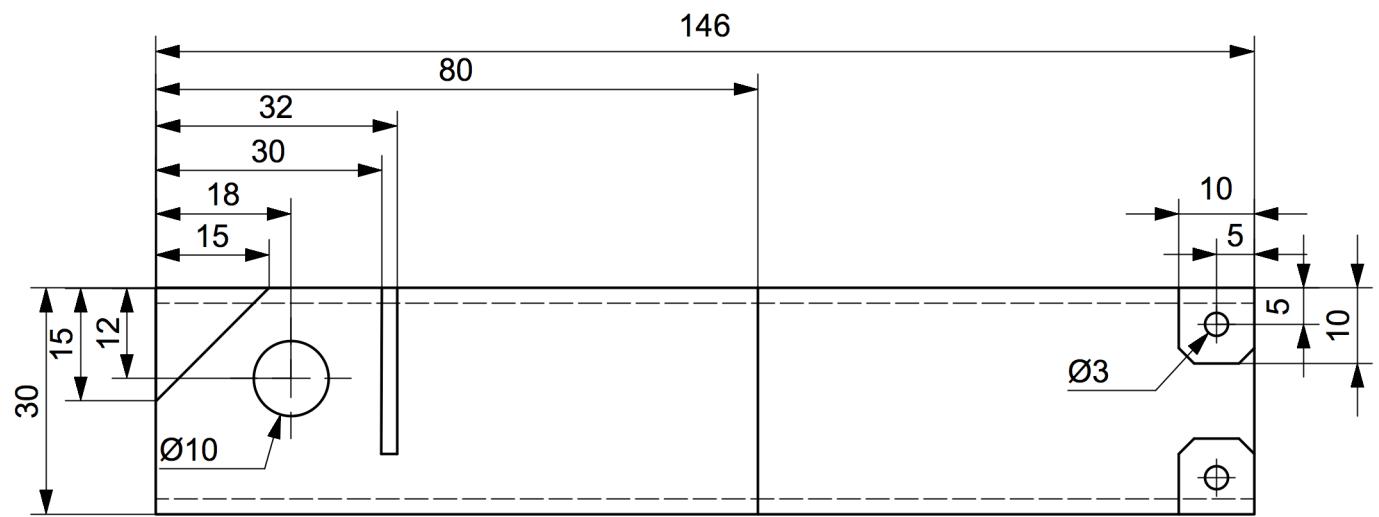
Template Variant 2

S1:1



Template Variant 3

S1:1



Template Variant 4

S1:1

