Target goal

What a goal!

Target goal
Now target goals are not only for TV shows because you can also have one at home in your garden.

1 Introduction

The target goal is an absolute classic for football fans. We will show you how to build a model from sturdy birch multiplex that can be dismantled and space-savingly stowed away in the garage or cellar when it is not being used. The following assembly instructions apply to 21-mm-thick birch multiplex. You must adapt the list of materials accordingly if you opt for other materials or material with a different thickness.

As a whole, the target goal is quite big and heavy. So to make it easier to handle, we have made it in two halves. Both halves are joined by a plate on the back using screws. The two feet can also be removed. Each foot consists of two perpendicular foot plates at the bottom, the connecting foot strip above them and the two foot beams positioned on the strip. The target goal board is situated between the beams. If its weight presses against the foot connections, the board is held firmly between the beams. The pressure applied is strengthened by the pulling effect of the tensioning rope construction.

Required power tools:
> Jigsaw
> Multi-sander
> Cordless drill/driver
> Cordless screwdriver
> Fine spray system

Other accessories:
> Set of wood drill bits (6 or 8 mm for drilling depth of 100 mm)
> Sanding paper, grit of 120–180
> Adhesive tape
> Folding rule, soft pencil, rubber, pencil sharpener
> Two screw clamps
> Hacksaw
> Cutter
> Spanner
> Cover sheeting
> Underlay square timbers approx. 2,000 x 50 x 60 mm
> Cardboard approx. 1,000 x 1,000 mm as a template
> Strip of scrap wood approx. 550 x 40 x 21 mm as a circle cutting guide

Detailed material list:

<table>
<thead>
<tr>
<th>pcs</th>
<th>Designation</th>
<th>Length</th>
<th>Width</th>
<th>Thickness</th>
<th>Material</th>
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<tbody>
<tr>
<td>2</td>
<td>Target goal board</td>
<td>1,530</td>
<td>1,125 mm</td>
<td>21 mm</td>
<td>Birch multiplex</td>
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<tr>
<td>2</td>
<td>Side framing</td>
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<td>60 mm</td>
<td>21 mm</td>
<td>Birch multiplex</td>
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<td>21 mm</td>
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<tr>
<td>1</td>
<td>Connecting plate</td>
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<td>21 mm</td>
<td>Birch multiplex</td>
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<tr>
<td>2</td>
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<td>60 mm</td>
<td>21 mm</td>
<td>Birch multiplex</td>
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<tr>
<td>4</td>
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<td>21 mm</td>
<td>Birch multiplex</td>
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<tr>
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<td>Flat head screws, 4.5 x 60 mm</td>
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<tr>
<td>approx. 18</td>
<td>Flat head screws, 4 x 40 mm</td>
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<tr>
<td>approx. 1.5 l</td>
<td>Outdoor paint</td>
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</table>

2  **Sawing the target holes and cutting the painting template**
The centre positions of the target holes can be found in the design drawing. Mark the centres on the target goal boards. The boards must already have been cut to size.

The circle cutting guide for marking the holes is made from a strip of scrap wood (see accessories list for dimensions): drive a flat head screw in the middle at the end of the strip. This will serve as the pivot point of the circle cutting guide. 225 mm away from this (that is the hole radius) you drill a hole with the diameter of your pencil into the strip – the compass is finished! Put the point of the compass into the centre of the hole and draw a circle using the inserted pencil. Follow the same procedure for the other board.

To be able to saw the target hole using the jigsaw, you will need to make a small opening in which you can insert the saw blade. To do this, use the drill and a 10-mm wood drill bit to make a hole inside the circle close to the pencil line. Now you can use the jigsaw to saw precisely along the inside of the line until the round piece falls out. Repeat the procedure on the second board.

The circle cutting guide can also be used to make the cardboard painting template for the white edge of the hole. With a diameter of 650 mm, this circle is somewhat bigger. Mark a second radius of 325 mm on your circle cutting guide and drill a second hole for the pencil at this position. Draw the circle as described above and carefully cut out the hole using a utility knife.

3  **Installing the tensioning rope fittings**

Use the hacksaw to cut two pieces measuring 40 mm and four pieces measuring 120 mm off the threaded bolt. The 40-mm pieces join the ring nuts in the target goal boards; the 120-mm pieces hold the ring nuts to the feet.

Use a 6-mm wood drill bit to drill a hole in each of the target goal boards according to the dimensions specified in the drawing. This hole will hold the ring nuts required for tensioning with the wire ropes.

Insert the short threaded rods through the holes that have already been drilled in the halves of the target goal and screw on the ring nuts from both sides.

4  **Mounting the connecting plate with screws**

The connecting plate holds together the two halves of the target goal at the back. It is permanently bolted to one of the two halves of the target goal. The other half of the target goal is not connected until the paint has been applied, i.e. when you assemble the target goal.

Now pre-drill the connecting plate using a 4.5-mm wood drill bit and mount it to the half of the target goal using nine flat head screws (4 x 40 mm).

5  **Assembling the feet**

First of all, place the foot beams on the work surface with the upper side facing downwards. Tip: place an offcut with the same thickness as the target goal board between the foot beams. This guarantees that the target goal will fit between them. Now align the foot connections accordingly and fix them using 2 wood screws (4.5 x 60 mm) for each. Then fix the foot plates at the ends using 4 wood screws for each. Do not forget to pre-drill when applying the screws.
Now the ring nut has to be fitted to the foot. To do this, drill through the complete foot beam and through the foot connections with a diameter of 8 or 10 mm. Make sure that your drill bit is long enough. Screw a nut onto each of the long threaded bolts, place a washer on it and guide the threaded bolt from below through the hole you have just drilled. Hold the nut with the open-ended spanner and screw a ring nut tight on the top end.

6 Preparing the frame strips
The lengthways frame strips require five holes for the screw connections. The crossways frame strips require four holes. Use a 4.5-mm wood drill bit to pre-drill the strips, and countersink the drilled holes on the outer sides of the frame strips. These will not be joined to the target goal boards until the surfaces have been finished.

7 Sanding the wood surface
The halves and feet of the target goal are different colours, so you should deal with them before assembling the target goal or you should dismantle them before painting.
First chamfer all edges with sanding paper with a grit of 120 or 180 at a 45° angle to create a small bevel. Use your sander to sand all visible surfaces in the direction of the wood grain, also with sanding paper with a grit of 120 or 180.

8 Applying the paint
Applying paint not only has a decorative purpose, it also protects the target goal against the effects of weather. Although we have used special outdoor paint and the particularly robust multiplex, the target goal should nevertheless not be exposed to wind and weather without being covered up.
Begin with the halves of the target goal. Due to their large size, you should carefully cover the floor before working on it. Place the boards on square timbers, not directly on the floor. For reasons of safety, always wear a face mask, safety spectacles and gloves when working.
The easiest and fastest way to apply outdoor paints is with a fine spray system.
Mix the paint according to the manufacturer’s specifications and pour the mixture into the paint tank of the fine spray system. Using a test board, adjust the spray jet at the nozzle and the paint flow at the setting wheel. Depending on the direction you are spraying in, set the spray jet to horizontal or vertical for surfaces and tapered for edges.
Now apply a thin layer of paint. Spray using parallel strokes that overlap by approximately four centimetres until the surface is evenly painted. To achieve a consistent result, we recommend applying the paint in cross-shaped strokes. Repeat the painting procedure on the second half of the target goal and later on (after drying) repeat it again on the rear sides. Follow the same procedure when painting the frame parts and the feet.
Now the white rims around the target holes need to be painted. To spray these white, stick the previously prepared cardboard template on the (completely
dried!) half of the target goal using adhesive tape. When spraying, make absolute sure that no paint gets under the cardboard, so that a clean circular ring is obtained. Once everything has dried, you can mount the frame strips and ring nuts again and then fit the frame strips with screws.

9  Erecting the target goal
Take the end of a wire rope that has been cut to length, feed it through a ring nut in the foot and secure it using a rope clamp. Connect the other end in the same way using a turnbuckle. Repeat this procedure until ropes are hooked into all four ring nuts on both feet using turnbuckles.
Place the halves of the target goal between the foot beams in the feet. Tighten the turnbuckles only with light tension. When both halves are in place, screw them together using the connecting plate on the back. Use the remaining nine flat head screws (4 x 40 mm) for this. (You should also pre-drill the second half of the plate beforehand!). To finish with, you can use the turnbuckles to stiffen the target goal if necessary.
Our construction is very stable on its own. However, to prevent it from tipping over you should anchor it in the floor.

10  Done!

Bosch does not accept any responsibility for the instructions stored here. Bosch would also like to point out that you follow these instructions at your own risk. For your own safety, please take all the necessary precautions.