



How to build a grasshopper race track



Material

You will need the following materials for the construction:

- Plywood panel at least 55cm x 35cm, approx. 9mm thick
- Acrylic paint(s)
- Wood glue
- Masking tape

Optional:

- Piece of white fabric for the finish flag (approx. 40cm x 25cm).
- Black textile marker
- Ruler
- Wooden stick, approx. 1m long

➔ Note: The length of the racetrack can be doubled if - instead of one - two plywood boards are processed accordingly and these are joined together at the end on the lower side e.g. with metal connectors, small screws and nuts.



Tools

You will need the following tools for the construction:

- Band saw, jigsaw or circular saw (if you don't have one, you can also use a fretsaw).
- Sandpaper
- Brush



Step by step instruction

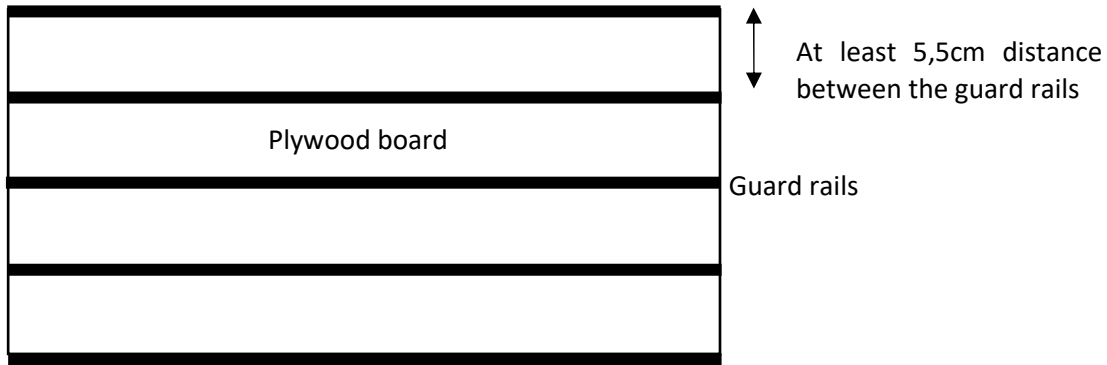
Step 1: Cut the wood

First we cut the plywood to the size we need. For storing it, the dimensions 55cm x 35cm is not bad. We also cut strips, approx. 1-1.5cm x 55cm.

We grind the edges of all the wooden pieces smooth with sandpaper.

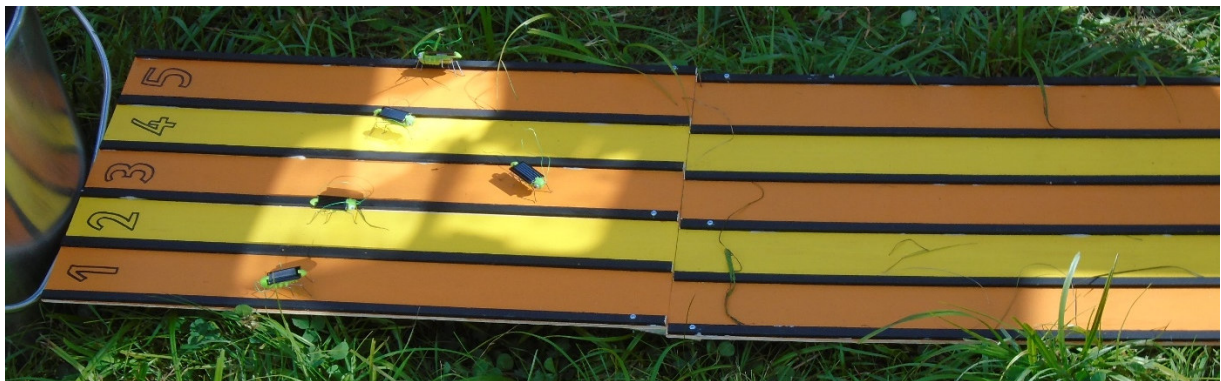
Step 2: Paint the race track

We measure the base plate and draw 4-5 equally wide tracks (Attention: include plywood strips as guard rails in your calculation). Each track should be at least 5.5cm wide so that the grasshopper can move. Then we paint the individual tracks in different colours. The cleanest way to do this is to mask the edges with painter's tape. Then we paint the plywood strips with a different colour.

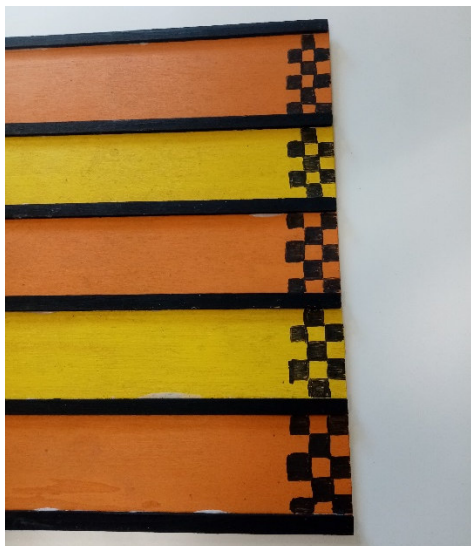


Step 3: Finish the race track

When the paint is dry, we glue the plywood strips ("guardrails") to the base plate and number the race tracks. In addition, we can draw a cube pattern at the finish.



The fully assembled racetrack, painted and numbered. Here you can see a double racetrack made of two plywood boards that are attached on the lower side with metal connectors, small screws and nuts. After use, it can be disassembled and stored more easily.



The finish area



A way to join two plywood panels together if you want the racetrack to be longer.

Optional: Make a finish flag

We cut the white piece of fabric into a rectangle. With the textile marker and the ruler, we draw a grid so that we have squares that are even. Now paint every second square black, in order to create a cube pattern. Repeat the same procedure on the back of the fabric.

We attach the flag to one end of the wooden stick (e.g. with wood glue).



A completed finish flag, here with double fabric sewn together at the edges.