

FLL Competition Table



At the FLL Robot Game a self-made robot has to fulfill various missions on the FLL Playing Field. For the preparation each team is provided an FLL Challenge Set which consists of a roll out field mat (2350 x 1150 mm) and the LEGO mission models. To prepare for the challenge the field mat can be rolled out on the floor, on a self-built field mat tabletop or the self-built FLL Tournament Table. A step-by-step instruction how to produce the table can be found on the following pages.

Material needed: Tabletop for Playing Field

- 1 pc. table surface, plywood: 20 x 1270 x 2470 mm
- 2 pcs. large field border: 50 x 100 x 2470 mm
- 2 pcs. small field border: 50 x 100 x 1170 mm
- 1 pcs. Dummy border: 50 x 100 x 300 mm (look at step 5 for use)
- Approx. 20 Large screws
- Screwdriver (cordless screwdriver)
- Clamps
- Black paint (matt) to the borders

Material needed: Subconstruction of Table (optionally)

- Additionally 4 pcs. of squared timber for stiffening for the table: 50 x 100 x 1270mm
- 2 Sawhorses: high app. 750mm
- Approx. 15 Large screws

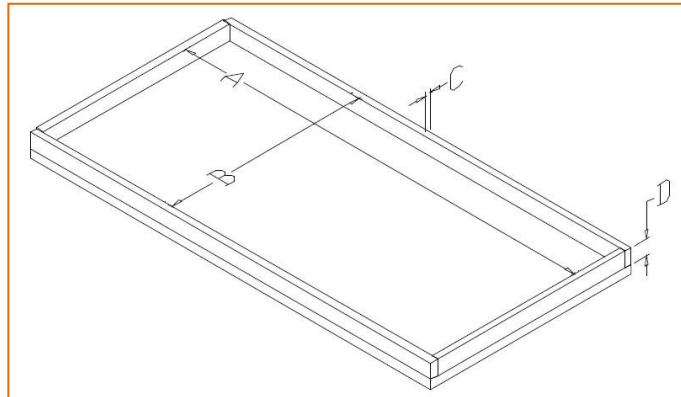
Material needed: Lightning (optionally)

- 2 pcs. Upright: max. 50 x 100 x 1170mm (No. "5" on drawing 4).
- Crossbeam: max. 50 x 100 x 2570mm (No. "6" on drawing 4)
- 1 fluorescent shop light 40 watt tubes
- Approx. 15 Large screws

Instructions: Tabletop for Playing Field

Step 1: Paint the field borders and the dummy border black.

Step 2: Lay down the field borders and surface as shown at picture 1.

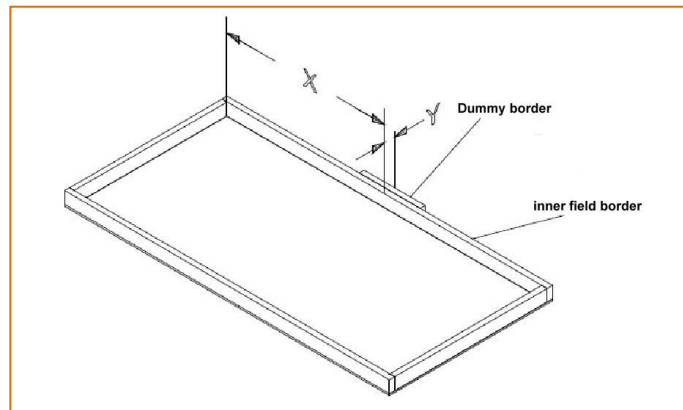


1: Internal dimensions of field borders
A = 2370mm, B= 1170mm,
C= 50mm, D = 100mm

Step 3: Double check that your roll out mat fits into the borders.

Step 4: Fasten the field borders with large screws.

Step 5: Fasten the dummy border as shown in picture 2. It is there to simulate a neighboured table. During the tournament there are two teams at a time competing at two tables fronting each other. There are mission models being placed in the center of the top of the inner field borders. If there are two tables in a tournament situation fronting each other this step is dropped.

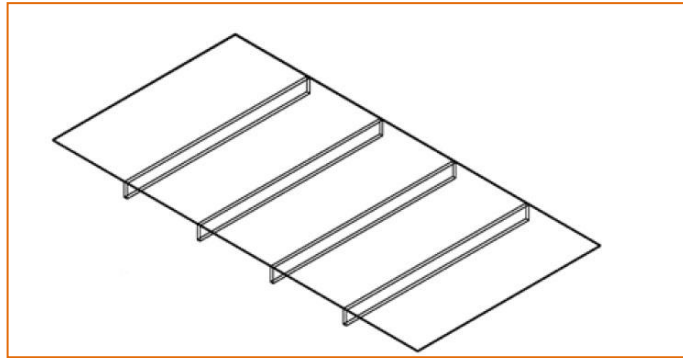


2: Fixing of Dummy Boarder
X = 1225 mm. Y = 80 mm

The tabletop for the playing field is now ready. It can be placed on the floor for practicing or on a stable underground like a table. The following steps are only necessary if the self-built tabletop for the playing field should be equipped with a sub-construction (see drawing no. 5a) or lightning.

Instruction: subconstruction for tabletop (optionally)

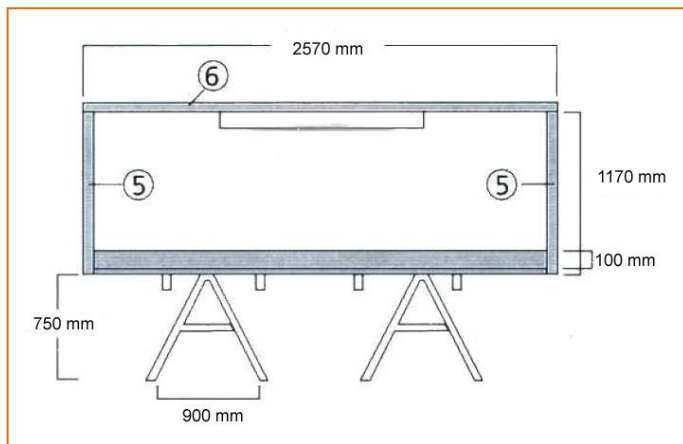
Step 6: Place, clamp and fasten the stiffeners at the bottom of the tabletop (see drawing 4), so that it builds a stable basis for the tabletop.



3: Fastening of stiffeners

Step 7:

With the help of another person place the whole construction on the saw horses.



4: Competition Table with lightning; Parts 5 and 6 Upright and Crossbeam

Instruction: Lightning (optionally)

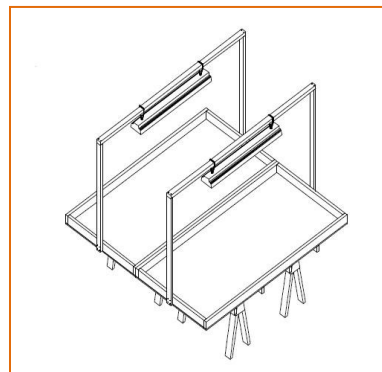
Please consider that since the tournament season 2009, it is no longer obligatory for the FLL Regional Partners to equip the tables for the tournament and preparation area with fixed lightning constructions. The partners are free to build the tables with or without lightning but they have to assure that there are the same lightning conditions in the preparation as well as the tournament area and the tables are equipped in the same way.

Step 7:

As shown in drawing no. 4, place the wooden uprights centered at the short outer part of the table borders. Clamp and fasten them with screws. With the help of another person, situate the Cross Beam on top of the two uprights and screw it down. Hang the shop light e.g. by chains from the center of the Cross Beam.



5a: stand-alone table



3b: Table in competition situation