Field Setup

The field consists of the border walls and everything inside them. The mat, the mission models, and the home area are all part of the field. The mat and LEGO® pieces for building the mission models are in your Challenge set. The building instructions for the mission models can be found at firstlegoleague.org/season.

MISSION MODEL BUILDING

The robot interacts with mission models on the field for points. The mission models are built in Sessions 1-4 in the Engineering Notebook. To build the mission models (models), use the LEGO pieces from your Challenge set and the building instructions from firstlegoleague.org/season. It would take one person about six hours to build all the models. The information on page 4 will help you to sort the bags before building.

Models need to be built perfectly. Almost perfect is not good enough. If you practice with incorrect models, the robot will have problems at competitions. Best practice is for at least two people to check each other as they build.

FIELD MAT PLACEMENT

STEP 1 – Check the table surface for bumps. Sand or file them away and then vacuum well.

STEP 2 – On the vacuumed table only, unroll and place the mat as shown on the right. Never fold the mat, and never crush or bend a rolled mat.

STEP 3 – Slide the mat against the south and east border walls. There should be no gap at the south or east walls, but there should be a gap at the north wall of about 1/4 in. (6 mm). When table size and mat placement are correct, the area west of the mat measures about X = 13.5 in. by Y = 45 in. (343 mm by 1,143 mm).

STEP 4 – Optional – To hold the mat in place, you can use thin strips of black tape, covering only the mat’s east/west black borders.

NOTE: If you compete, remember that volunteers work hard to get the fields just right, but you should expect and design for rare imperfections, like bumps under the mat or changes in light.

Practicing without an official table or border walls is okay, but competitions will be held on an official table in tournament setup. Please practice with this in mind. Guidance for practicing at home and instructions for building an official table can be found here: firstlegoleague.org/season.
Missions

Missions are tasks that can be completed for points. The details are simple, but there are many of them. For full understanding, read and reread them as a team, next to an actual field.

Below, example mission MXX tells you what each part of a mission’s text is for, based on its location and color.

**Mission Model Location and Direction**

Missions often use coordinates such as north (N), east (E), south (S), and west (W) to describe direction or location.

For example, instead of right or left, we might use east (E) or west (W). Instead of top or bottom, we might use north (N) or south (S). The compass here can be used as a reference to help visualize this.

A compass has been provided on the mat. If you ever get stuck with directions, you can check your mat or come here for reference!
**Gracious Professionalism® displayed at the robot game table**

Referees will evaluate Gracious Professionalism® for every team at each one of their matches. The Gracious Professionalism points will be added to the points scored on the Core Values rubric during the judging session and will make up a portion of the total Core Values score. It will be assumed that every team will start with Gracious Professionalism that is **ACCOMPLISHED** (3 points). If a referee observes behavior that is above and beyond what is expected, they will score the team’s Gracious Professionalism as **EXCEEDS** (4 points). Equally, if a team’s behavior shows that their Gracious Professionalism is still evolving, they will be scored as **DEVELOPING** (2 points).

<table>
<thead>
<tr>
<th>DEVELOPING</th>
<th>ACCOMPLISHED</th>
<th>EXCEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Rules**

Be sure to read the rules carefully! We highly encourage teams to stand next to an actual field for reference. Your understanding of the rules can greatly affect your performance and overall score in a match.

Throughout the season, a rule or mission may receive an update. Make sure you read these carefully and check back often. Challenge Updates can be found at [firstlegoleague.org/season](http://firstlegoleague.org/season).

**Example Layout**

*Purple* text introduces or summarizes rule context for faster understanding where helpful. It is not used for scoring.

*Black* text under purple is for the main facts of the rule.

*Blue* text under black is for very important added tips, leniency, or other helpful facts.