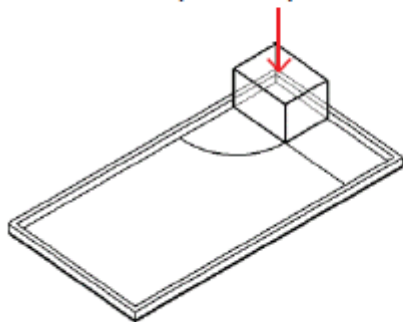


Mission 00 Equipment Inspection Bonus

<p>If all your equipment fits in the small inspection space.</p> <p><i>When you get to each match, remove all your equipment from any containers and show the referee you can fit it all in the small inspection space. See Rule 09 for details.</i></p>	<h1>25</h1>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M00 Equipment Inspection Bonus

Small inspection space




“Doing the same with less” can save time and space.

- If all your equipment fits in the small inspection space: **25**

Mission 01 Innovation Project

<p>If your Innovation Project: Is made of at least two white LEGO pieces Measures at least as long as four LEGO studs in at least one direction Has any part of it touching either the RePLAY logo or the gray area around the bench.</p> <p><i>Build and bring a single model that represents your solution to the Innovation Project. The one shown here is just an example. CAUTION: Your Innovation Project counts as equipment. Building of your Innovation Project model is suggested in Session 9 in the Engineering Notebook. Read rule R01 and all the rules carefully and often so you can avoid surprises at competitions.</i></p>	<h1>20 max</h1> <p>points</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M01 Innovation Project



Example
Innovation Project

The robot moves your Innovation Project onto the RePLAY logo or the gray area around the bench (M04).

Mission 02 Step Counter

<p>If the bottom of the pointer is on</p>	<p>magenta: 10 yellow: 15 blue: 20 points</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M02 Step Counter



The robot slides the step counter slow and steady. The farther the "walk," the better.

Mission 03 Slide

<p>“Off the slide” scores if the slide figure’s black frame is past/below the tip of the slide’s gray slide part. Notice the score for two slide figures off is 20, not 25.</p>	<p>If only one slide figure is off the slide: 5 If both slide figures are off the slide: 20 If a slide figure is completely in home: 10 max If a slide figure is held completely off the mat by the heavy tire and is touching nothing else: 20 max</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M03 Slide



The robot slides the people (called “slide figures”) down the slide and moves them to other areas.

Mission 04 Bench

	<p>If the bench is down flat: 10</p> <p>If the bench is down flat and there are cubes touching the mat in hopscotch spaces: 10 each space</p> <p>If the backrest is completely out of both of its holes: 15</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M04 Bench



The robot removes the backrest, flattens the bench, and gets cubes into the hopscotch spaces.

Mission 05 Basketball

<p><i>Only one cube can score in the crate. Score top height or middle height, not both.</i></p>	<p>If there is a cube in the crate: 15</p> <p>If the crate rests on the middle height's white stopper: 15</p> <p>If the crate rests on the top height's white stopper: 25</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M05 Basketball



The robot raises the crate up the post and gets a cube into it.

Mission 06 Pull-Up Bar

<p>A “pass through” can score northward or southward, but only one way and only one time. A “pass through” scores at the time it happens. This is a rule R22 exception. For the “held up” score, you cannot score this and M07 in the same match.</p>	<p>If the robot passes completely through the pull-up bar’s upright frame at any time: 15 max</p> <p>If the pull-up bar holds 100% of the robot up off the mat at the end of the match: 30</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M06 Pull-Up Bar



The robot passes completely under the bar any time. Separately, it is held off the mat by the bar at the end of the match.

Mission 07 Robot Dance

<p>Any silly or skilled repetitive action counts as dancing – do something fun! For M07, you cannot score this plus the “held up” score from M06 in the same match.</p>	<p>If the robot’s controller is at least partly over the dance floor in a “dancing” motion at the end of the match: 20</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M07 Robot Dance



Dance Floor

The robot is dancing on the dance floor at the end of the match.

Mission 08 Boccia

<p>If there is equipment even partly in your frame, M08 scores zero for you (the opposing team is not affected). If, like most teams, you have only your one practice table, your sent cube will simply go over your north wall during practice. (Study the scoring examples as if both share models did share only one cube.)</p>	<p>If both share models have sent only one cube anywhere onto the opposing field and those cubes color-match each other: 25 for each team</p> <p>If there are cubes completely in your frame or target: 5 each cube</p> <p>If there is at least one yellow cube completely in your target: 10 added</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M08 Boccia



Boccia Share

Boccia Aim & Frame

Boccia is an interactive mission with the opposing team. Talk with the other team so the robots send matching colored cubes onto the opposite field.

Mission 09 Tire Flip

<p>If the heavy tire crosses the red flip line at any time, even partly, it scores zero. The flip line runs all the way north to south. Only part of it is shown.</p>	<p>If the light (blue tread) tire is white center up: 10</p> <p>If the heavy (black tread) tire is white center up: 15</p> <p>If white-center-up tires are completely in the large target circle: 5 each</p> <p>For all scores, the tire needs to be resting on only the mat.</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M09 Tire Flip



The robot flips tires so their white centers face up and moves them into their large target circle.

Mission 10 Cell Phone

	<p>If the cell phone is white side up and resting on only the mat: 15</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M10 Cell Phone



The robot flips the cell phone white side up.

Mission 11 Treadmill

<p>If a position is not clear, imagine a needle at the end of the pointer. The edge of a color counts as that color. If the robot moves the pointer by touching the pointer, M11 scores zero.</p>	<p>If the robot spins the rollers so the pointer points to</p> <ul style="list-style-type: none"> ▪ gray: 5 ▪ red: 10 ▪ orange: 15 ▪ yellow: 20 ▪ light green: 25 ▪ dark green: 30
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M11 Treadmill



The robot spins the rollers to move the pointer as far clockwise as possible.

Mission 12 Row Machine

	<p>If the free wheel is:</p> <p>Completely outside the large circle: 15</p> <p>Completely in the small circle: 15 added</p>
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M12 Row Machine



The robot moves the free wheel out of the large circle and into the small target circle.

Mission 13 Weight Machine

<p>Before the match starts, you slide the lever where you want, with the stopper on top. This is an exception to rule R12. The lever setting is the color under the east face of the east green bar.</p>	<p>If the stopper is under the lever and lever setting is</p> <ul style="list-style-type: none"> ▪ blue: 10 ▪ magenta: 15 ▪ yellow: 20
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M13 Weight Machine



Before the match, you hand select the machine's lever setting. During the match, the robot moves the lever until the little yellow stopper falls.

Mission 14 Health Units

<p>The robot collects health units from around the field and moves them to target areas.</p>	<p>If health units are:</p> <ul style="list-style-type: none"> ▪ Touching either the RePLAY logo or the gray area around the bench: 5 each ▪ Looped over a pull-up bar post as shown – maximum of four – and touching no equipment: 10 each
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M14 Health Units



The robot collects health units from around the field and moves them to target areas.

Mission 15 Precision

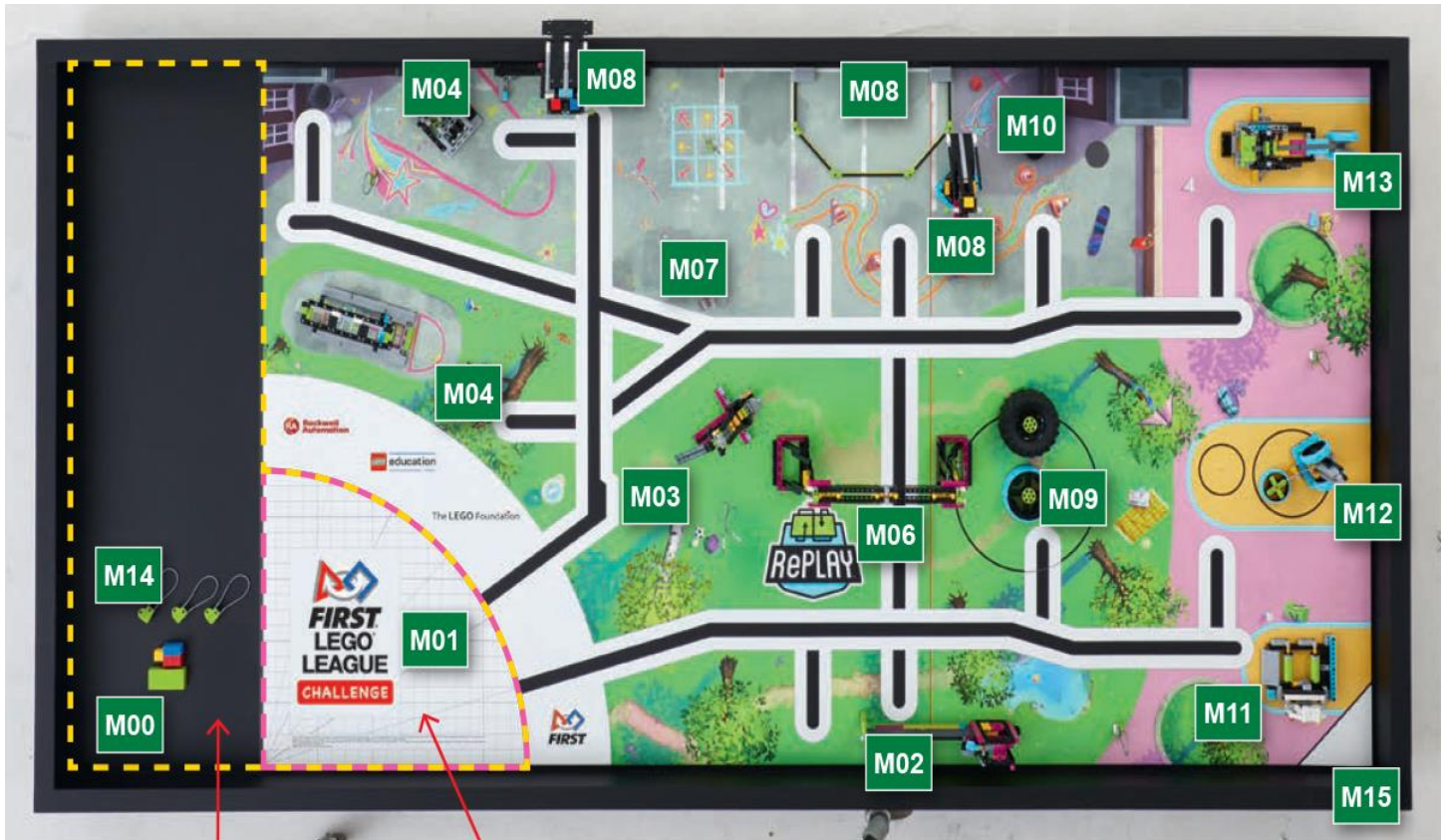
<p>See rules R05, R15, R16, and R19.</p>	<p>If the number of precision tokens left on the field is</p> <ul style="list-style-type: none">▪ 1: 5▪ 2: 10▪ 3: 20▪ 4: 30▪ 5: 45▪ 6: 60
<p>Attachment(s):</p> <p>Setup Notes:</p>	<p>Programming: (details on back)</p> <p>Run:</p> <p>Name:</p>

M15 Precision



The less often you interrupt the robot outside home, the more points you keep.

Mission Table



Home:  Launch area: 