



The Fun at the Fair Challenge Missions

Review the Fun at the Fair Challenge mission videos before you start.

Review the videos for the correct placement of the Mission Objects, on the mat, at the start of a Match. Review the videos for the correct scoring position of each Mission Object at the end of the Match.

Think of the times you have gone to the Fair or the Amusement Park and played the games to win a prize. Now transfer the excitement of winning the prize to your robot. You will need to design and program your robot to accomplish the missions successfully. Just like yourself, the games appear easy, then the challenge takes over you to win the prize. Remember try as many times as you can, but the clock runs out at 3 minutes.

Warning: The Fair is a mess, people have thrown garbage all over the ground. As you prepare for this Challenge, make sure to protect your robot's wheels. **Clue:** Look at the Bumper Cars Mission, do you see the wheels? Huh! Where are they? Design your robot like a Bumper Car to protect the wheels.

FYI: Also, when you play a game at the Fair, the game is located within the area of a booth. You will notice each game on the mat has an outline around it. Follow the Mission instructions. Unless otherwise stated, the Mission objects which are activated, acted on, delivered, retrieved, etc., must be located within the area of the booth to score. Review Mission videos for clarification for each Mission.

Points Awarded at the Start of the Match

Garbage Cans (Touch Penalties)	On the mat	5 Points Each
	Retrieve the Garbage Cans back to the Safe Zone	10 Points each
		Maximum 50 Points
Garbage LEGOs	On the Mat	0 Point Value
Basket Toss LEGOs, Soft Balls	On the Mat	0 Point Value

Missions are numbered in a clockwise manor, starting in the middle. You may attempt these Missions in any order.

Remember follow the General Rules. For all the Mission, but especially the first 3 Missions, your robot must leave the Safe Zone entirely before it acts on the Mission Objects. If your robot acts on the Mission Objects before it leaves the Safe Zone, the referee will not award points for successfully completing the Mission.

Mission 1 Fair Entrance Open the Gates to the Fair. Maneuver each Gate so that it is above the Red Line. Each Gate scores separately. 20 Points Each
Maximum 40 Points

Mission 2 Wack-a-bot My wife’s favorite game at the Fair is Wack-a-mole. Is she thinking of me as she wacks the mole? Reposition the Bots to the yellow line in the booth. The Bot must touch the yellow line within the booth to score. The Bots can be in any position. 14 Points each
Maximum 42 Points

Mission 3 Spinning Cup Rotate the spinner. The Red Cup needs to be between the black lines partially, or completely to score. Locate the Red Cup between the Black Lines.
Cup located between the Black Lines 32 Points

Mission 4 Bumper Cars The fun of Bumper Cars is hitting the other cars. Maneuver the Bumper Cars to the Yellow circle. For a higher score, maneuver them to the Black circle.
Each Bumper Car touching the Yellow Circle 6 Points
Each Bumper Car Touching the Black Circle 12 Points
Maximum 36 Points

Mission 5 Field Goal Toss Place the rubber ball, from the Safe Zone, in one of the two areas constructed on the Green or Blue Plate. Ball placed in the right area 25 Points
Ball placed in the area near the Goal Post 40 Points

Mission 6 Bowling Ball Roll Roll the wheels. When the left grey axle is positioned above the Green or Yellow/Orange LEGOs, receive a score. Axle above Green 30 Points
Axle above Yellow/Orange 50 Points

Mission 7 Strong Man Activate the hammer.
Hammer in the down position 30 Points

Mission 8 Tip the Bots This may be tricky. Remember the Bots must be touching the Blue or Green area of the booth to score. Remove the Bots from their starting position and place them on the mat.
Each Bot 20 Points
Maximum 60 Points

Mission 9 Spill the Milk Bottles Knock over the bottles. All 3 bottles must NOT be touching the round Green Table area, and stay within the booth area to score.
Maximum 40 Points

Mission 10 Ferris Wheel Create a Ferris Wheel Car of your own. With a MINIFIG inside, deliver your Ferris Wheel Car to the Ferris Wheel. Only 1 MINIFIG per car. Only 1 car per yellow car outlined on the mat. Make sure to have your car touch the car outlined on the mat to score. You may add up to 6 Ferris Wheel Cars, you may deliver only 1 at a time.
Scoring Cars 1 through 6: 30, 26, 22, 18, 14, & 10 Points. Point value per car decreases as more cars are added.
Maximum 120 Points

Mission 11 Squirt Gun Mania, Trigger 1 & 2 Reposition the arm such that the arm rests behind the black line
Trigger 1: 15 Points
Trigger 2: 25 Points
Maximum 40 Points

Mission 12 Basket Toss Take the 3 “Softballs” (light brown LEGOs) found in the Safe Zone and place them into the Red basket. Each scores separately. You may also recover the 3 Softballs on the mat to score them as well. NO Garbage Please!
5 Points each
Maximum 30 Points

Mission 13 Marble Toss Position the marbles from the Safe Zone on the LEGO plates. The marble must touch the LEGOs of the Mission Object to score. Each marble scores separately. The color of the plate the marble rests on has NO value. 10 Points each
Maximum 40 Points

Mission 14 King/Queen of the Fair Finish the Match with your robot resting on top of the Quad Platform. **Remember, the drive wheels/tread must be above the Quad area to count.** Wheels/tread can be touching or not touching.
Maximum 70 Points

Total potential Score for all Missions

720 Points