

## 2025 Robotics Challenge

## Robot Game Mission Objectives

Objective	Description	Materials	Points
1. Draft letter	Answer the call to service by opening the draft letter. Push the envelope open so the draft letter is visible.	Envelope with Printed Letter	<ul style="list-style-type: none"> <li>Robot touches envelope during match – 5 points</li> <li>Draft letter is visible to referee during match – 15 points</li> <li><i>Points will be awarded for either touching the envelope or a visible letter, but not both.</i></li> </ul>
2. Building Victory	Help the Engineer Aviation Battalion build an airbase. Bring the wooden blocks from headquarters and stack them on the mat.	2 Wooden Blocks	<ul style="list-style-type: none"> <li>1 Block touching, but not completely inside the black rectangle – 10 points</li> <li>1 Block completely inside the black rectangle - 20 points</li> <li>2 Blocks completely inside of the black rectangle, with the second block stacked on top of the first block – 40 points</li> </ul>
3. SS Sea Cloud	Set sail with the crew of the SS <i>Sea Cloud</i> . Move boat from starting point to the water.	1 Toy Boat	<ul style="list-style-type: none"> <li>Boat touching water – 10 points</li> <li>Boat completely in water – 20 points</li> </ul>
4. Red Ball Express	Bring vital supplies across Europe with the Red Ball Express. Move the truck from headquarters to the end point.	1 Toy Truck	<ul style="list-style-type: none"> <li>All four wheels are inside red square at the end of the mat – 40 points</li> <li>At least one wheel is inside red square – 20 points</li> </ul>
5. Protest banner	Reveal the message for equality in the protest banner. Help by unfolding the fabric.	Handkerchief	<ul style="list-style-type: none"> <li>Handkerchief is partially covering the yellow section of the square – 15 points</li> <li>Handkerchief is unfolded and covering the yellow rectangle - 30 points</li> <li><b><i>Points will not be awarded if the handkerchief is detached from the mat.</i></b></li> </ul>
6. 6888 <sup>th</sup> Battalion	Help the 6888 <sup>th</sup> Central Postal Battalion sort mail. Deliver bean bags to the square that corresponds to their color.	2 Bean Bags	<ul style="list-style-type: none"> <li>1 Bean bag is delivered to either drop off location – 10 points</li> <li>2 Bean bags are delivered to drop off locations, with one at each location – 20 points</li> <li><b><i>A bean bag must be completely inside of the correct square to earn points.</i></b></li> </ul>
7. Black Rosies	“We Can Do It!” Work with the Black Rosies to add nuts and	2 Wooden Rings, Wooden Dowel &	<ul style="list-style-type: none"> <li>1 ring is placed around dowel – 15 points</li> <li>2 rings are placed around the dowel – 30 points</li> </ul>

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	washers to the bolt. Collect wooden rings from headquarters and place them around to the upright dowel on the mat.	Base (secured to mat)	<ul style="list-style-type: none"><li>• <b><i>Points are only awarded for rings completely around the dowel. Points will not be awarded if the dowel is detached from the mat.</i></b></li></ul>
8. Blood Plasma	Dr. Charles Drew needs to resupply the Blood Bank. Retrieve the plasma tube and deliver it to headquarters.	Plastic canister	<ul style="list-style-type: none"><li>• Canister is returned to Headquarters – 25 points</li><li>• Canister is in play area but moved from starting position – 15 points</li></ul>
9. Tuskegee Airmen	Help the Tuskegee Airmen fly their mission successfully. Retrieve the 99 <sup>th</sup> Fighter squadron airplane from its mission location on the mat and return it to headquarters.	Toy Airplane	<ul style="list-style-type: none"><li>• The airplane is in the play area, but not touching the square at the end of the match – 10 points</li><li>• The airplane is returned to Headquarters before the end of the match – 25 points</li></ul>
Touch Penalties	Avoid interrupting your robot during the game.		10 points for not interrupting the robot during the game.