Senior Design Group 301
Customer Needs
9/24/21

No.	Need/Statement	Source
1	Adheres to competition specifications and rules	Rulebook
2	Pick up and throw/drop beads into fish nets and trash bins	Rulebook
3	Push the marshmallows off the roadway	Rulebook
4	Have a display that moves mechanically and lights up	Rulebook
5	Play a song	Rulebook
6	Complete the track in both directions	Rulebook

No.	Need	Requirement/Interpretation
1	1	Fit within 1'x1'x1' at start
2	1	Include a labeled start switch
3	1	Be autonomously operated
4	2	Include an arm/appendage or other launching/dropping mechanism
5	3	Include a mechanism to push the marshmallows
6	4	Include a digital screen with extendable mechanism
7	5	Include speakers with player
8	6	Robotic base that includes wheels, battery, actuators

Since the team does not have a specific customer, customer needs are described based on the IEEE SoutheastCon 2022 Hardware Competitions rulebook. According to the rulebook, there are 10 different ways to get points, including throwing beads, pushing marshmallows, and playing a song. These methods to get points can be considered the "questions" for the project, and the different ways we can implement these methods can be considered the "requirement/interpretation".

To summarize: Our robot's goal is to accrue the most amount of points possible, by picking up and throwing beads into fish nets and trash bins, pushing marshmallows off the track, including lights and a display, playing a song, and completing the track in both directions.