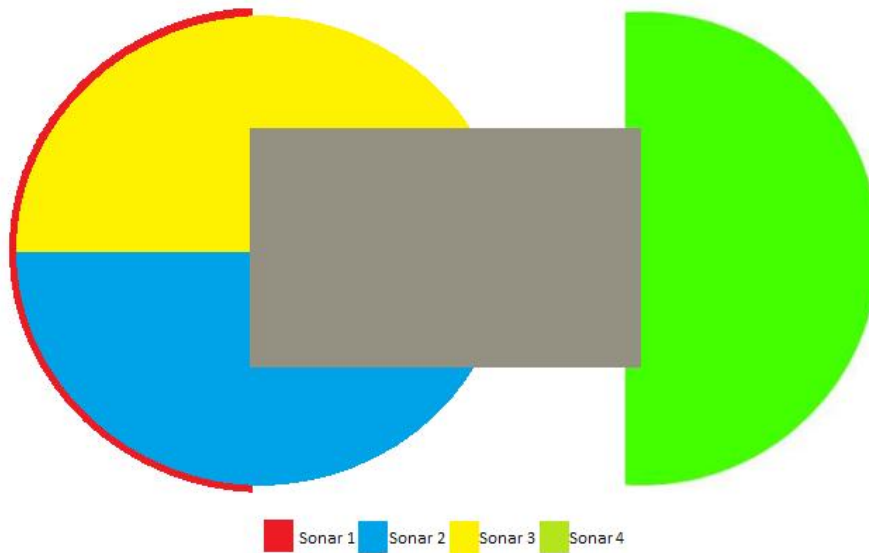


This is our proposed design for the sonar placement. All four sonars will be mounted on servo motors and rotate. The one in the back is denoted by the green color and will have a 180° field of vision. There will be three sonars on the front; the one denoted by the red color will be placed towards the bottom of the Wandering Ambassador about 12 inches off of the ground. It will have a 180° field of vision. The two sonars denoted by blue and yellow will be placed at the corners of the wandering ambassador at the front about 24 inches above the bottom sonar. They will function so that the sides of the robot can be viewed in addition to the front.

This sonar placement will provide the Wandering Ambassador a larger field of view. Two additional servo motors will need to be purchased.

### Field of View Analysis - Sonar Top View



### Field of View Analysis - Sonar Side View

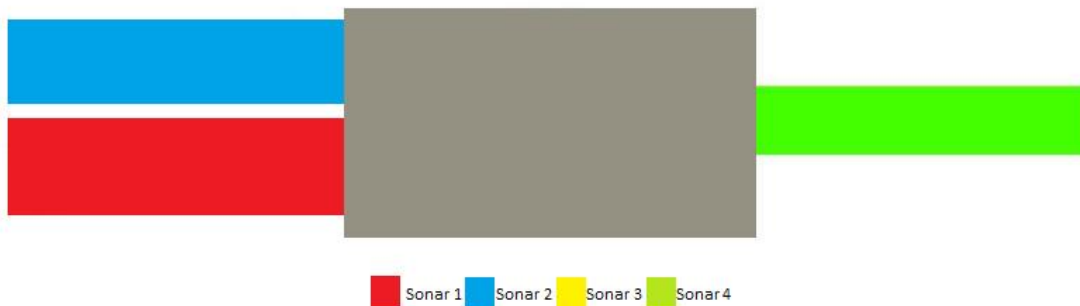


Figure 1 - Sonar Placement