

The first design consists of a large rectangular platform with an L bracket used to connect it to the track. I built large sides to the vehicle to mount the two electric propellers to. In the center of the rectangle mounted to the bottom is the Arduino and in front of it is the battery pack placed perpendicularly. It is held in place by two brackets. The design was not the most optimal as it was found to be unstable, cost inefficient, and harder to perform maintenance. The AEV also had a less than optimal design when it came to looks and also had a great part in why it was not chosen to be used as the team's design. The large box-like design required many parts and is the reason for high operating costs. It also made the design very heavy which led to its instability. Finally the box like design also made maintenance very hard as the sides hindered the user from accessing the innermost parts. One final problem that led to the selection of a different design was the selection of the propeller blades. The wrong ones were selected and were too big for the design.