

For my technical documentation, I am going to be writing about my cooling system vents. The reason why we needed to have a vent was to prevent the hardware box from overheating. There were a few proposed solutions such as a fan, water cooling system, and passive cooling. We went with the water-cooling system because it could dissipate heat the fastest. A water-cooling system includes a radiator that is attached to the outside of the hardware box and cooling tubes are connected to allow water to travel through. Therefore, I came up with a design to have a mount that is held on by fasteners. The reason why the mount is screwed onto the ridges of the radiator is to allow easier airflow. The whole radiator was designed to extend 6 inches outward because of the way that the WAM-V is oriented, there is a triangular beam that stands in the way of having the radiator directly attached to the hardware box. Which also explains why there are only 5 fasteners on the mount; therefore, the hardware box can have easy access in being removed on and off from the WAM-V. Some of the potential risks for using a radiator are: 1. Leaking can occur from the cooling tubes and this can heavily damage the components inside the hardware box. 2. Sagging on the exterior side of the hardware box can occur because the design only hangs off the side by 5 fasteners.



