The Nerfinator

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The "Nerfinator" is a "Nerf N-Strike Vulcan EBF-25 Blaster" mounted on a series of "Vex Robotics" parts. The turret base rests on four omni- directional wheels as shown in figure 1, allowing the turret to move; forward, backward, left, right, and strafe side to side. The actual Nerf gun is mounted on two hydraulic pistons as shown in figure 2, allowing it to move up or down depending on the range needed to hit the target. The Nerf gun also had the 9.6V battery pack removed and replaced with a 9.6V rechargeable battery pack and a 7.2V rechargeable battery pack, wired in a series, as shown in figure 3. This sped the Nerf gun's rate of fire up from 212 rounds per minute to 500 rounds per minute or 25 shots every three seconds, which is a full belt of ammo. The robot is currently remote controlled but is in the process of being programmed to be autonomous using C++ programming. The robot was built as a prototype to represent how a similar idea could be used in a real war application.

Figure 1- Omni- Wheel

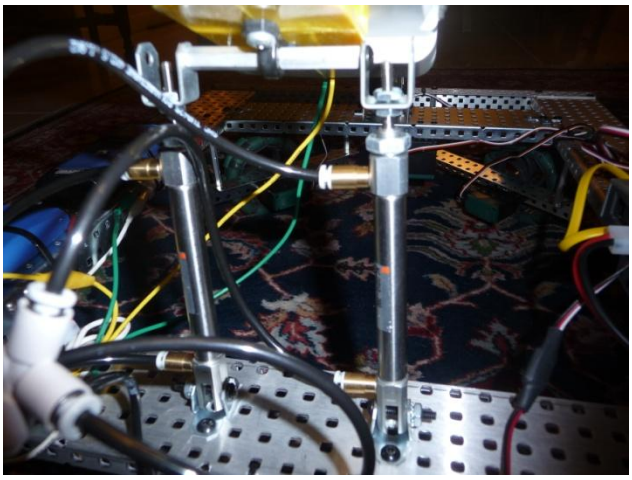

Figure 2- Hydraulic Pistons

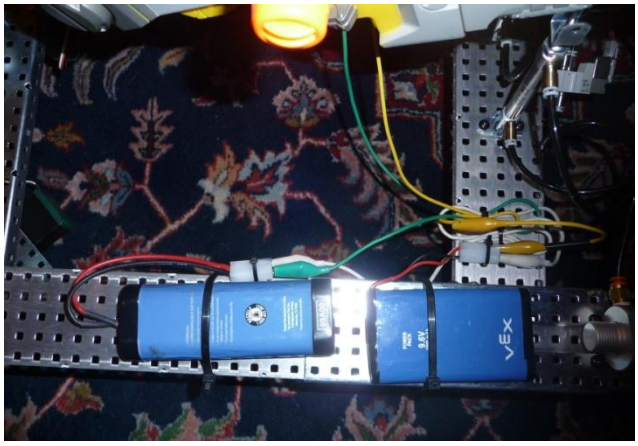

Figure 3- The 9.6V and 7.2V battery packs for the Nerf Gun.