

The Hound

McFall, Darrin (School: EEEP Antonio Rodrigues de Oliveira)

In modern times amidst the technological revolution, people are encouraging the use of robotics in everyday life. Since large amounts of people have been injured in the past year in emergency situations, robots can be used to greatly improve the conditions that these workers are exposed to. In emergency situations, people can suffer from stress, overexertion, and injury from many hazards in their workplace. Robots are incapable of feeling pain or stress and prove themselves to be a cheap, safe alternative for human labor in harmful jobs. Most of these injuries can be prevented by removing this human interaction. I believe that I can build a robot to efficiently provide humans an alternative to these situations. I initially had some problems obtaining a few of the sensors that I wanted to test so I decided to base my robot prototype's tests on rough terrain and hard to reach areas. I discovered many things about my machine's efficiency such as a direct relation to wheel speed and wheel size that is influenced by torque and mechanical advantage. Even though this project was not textbook, companies and groups alike will be able to substitute emergency robots in dangerous situations for the betterment of human lives.