

Interim Report

Team number: SVA 144

School name: South Valley Academy

Area of Science: Intermediate Robotics and computer programming

Project title: Droning to help Natural Disasters

Problem Definition:

Due to natural disasters around the U.S such as floods, hurricanes, fires, earthquakes, etc. many people are often forced to leave their homes with everything behind. These people may be placed in care centers such as community homes and centers, hotels, and motels. Often times for the people that cannot be placed somewhere safe, them and their families may end up being stranded with no way of getting food, electricity, clothes and other basic necessities. Even for the people that are able to find shelter, they may still be deprived of many things they need to sustain a healthy life while they are going through this disaster. For these people, over a period of time, basic needs will be hard to meet and life will be a struggle.

Problem Solution:

Our team has come up with a way to possibly end this problem or at least make the situation better. Our idea is to create and conduct a functioning website with a blog, comments page, donations page, and a current disaster page of the United States. The donations will help us fund our packaging and contents to create care packages for the people going through these natural disasters. We will also create drones as our transportation system that will be able to ship the packages to other states that are going through the natural disasters. Our website design process includes learning HTML and CSS codes to apply it to creating our website, and understanding how the drones communicate with computers and understand the tasks at hand. The drones will include the mechanics and wire setup as well as the body model. The drone will also include the component that holds our packages and the intelligence to know where to drop them off. Our packages will consist of supplies to help people going through natural disasters such as hurricanes, fires, Earthquakes, etc. Some of these supplies may include things like blankets, towels, water bottles, non-perishable food items, hygiene supplies, other forms of protective clothing, and a note that will explain where the care package is coming from. The card will also include a sample of our famous New Mexico chile seeds.

Expected Results:

We are working on having a prototype to interest people so then we can advertise our business and get money invested for our group so we could start buying supplies for our care packages and shipping. We also expect to be alert of what's happening in the U.S. by keeping track of our online map so we can help others as soon as possible by knowing where the next disaster will occur. We hope big businesses like the Red Cross take in our business to help those in need and become inspired by our work. We expect to see and hear people reach out to us when in need and receive the care that is necessary. Farther in the future we expect to have an operating business with newer technology to help. In the future we hope to have more stable money access to potentially get and ship more care packages across the continental U.S. and hopefully someday the world. We hope to eventually have a fully operating and running business that will make a difference in trying to change our world for the better. In the beginning we will start small but we eventually hope to have a bigger- fully running business.

Progress to Date:

As of now we have created the body of our drone and started 3-D printing out the parts by using a website called Thingiverse and Tinkercad to find our exact measurements. We have also been using codecademy to learn HTML and CSS. We will apply these languages as we create our website. Our drone idea is complete as of right now but is subject to change depending on how well our prototype functions. Two of our group members are working on learning the code and setting up our website, while the other two are working on finishing our drones and the designs to complete them.

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