### RWR

Our robot is a hovercraft recon device. Its purpose is to help save people from natural disasters (tsunamis, hurricanes, tornadoes, earthquakes, and etc.) This robot will move around by hovering as well as treads. It will use hovering towards earthquakes, floods, and tsunamis, and it will use treads for hurricanes, tornadoes, and in conditions where a hovercraft would not be suitable. Our robot will be equipped with a heavy duty claw-like shovel to remove dirt, a platform, and relief supplies to help people who need it, such as life jackets, first aid, extra clothes, and etc. In the following you will find all of the components from which our robot is made of.

## Locomotion:

Our robot will have two different types of locomotions. The first type is hovering; hovering is an effective way to search from above for people while staying out of harm from anything on the ground; like a flood or tsunami. By hovering we will also be able to land anywhere we want. So, if there are people drowning in the water we can land on the water (our hovercraft is water-proof as well as it can float) and pick up whoever is on the water. This hovercraft has an enormous propeller on the bottom allowing it to hover. Our device is 3 meters in length, 2 meters in width and 2 meters. However, in the case of a hurricane or tornado our robot has treads so it can move on the ground if the conditions are too hard. It can traverse the most difficult of terrain; snow, forest and sand. So it is prepared to move on any kind of terrain.

## Sensors:

On our robot there will be a various amount of sensors. 1<sup>st</sup> there will be heat detectors for humans. There will be cameras all over the device so that it can see from all sides if there are humans trapped under dirt, sand and water. Also, it will have motion detectors so it can see if there are humans moving anywhere or if there are any moving yet visible objects approaching it such as; birds, other aircraft, debris and water (tidal waves). It will also have sensors to detect its surroundings like the temperature, the terrain, the wind speed, components in the air, a metal detector under the craft, to detect metal under ground. It will also have a GPS tracking system to help keep it in the right area.

## Actuator:

Our robot uses various actuators. Firstly as you know there is a strong claw-like shovel in the front of the robot that would be used to dig through garbage and other debris to retrieve people or animals that have gotten stuck. The next actuator is a grapple gun, its will be on the roof of the robot. A grapple gun is a gun that shoots a rope with a claw at the end that grabs rocks, and other things it touches on contact in throws it away. Those would be used in disasters like for example a tsunamis. In hurricanes, the robot will have an electromagnetic shield that it turns on when it thinks it's in danger. The actuator is mainly used for protection. All of its actuators are hydraulic. In the end I think these actuators are efficient, and will help to do the job. People that it saves go up the ramp at the back to the room. It will then take them to the nearest hospital.

# **Application:**

Our robot is an A.I (artificial intelligence). It will be able to think for itself, and make decisions on its own when in it and its passengers are in danger. This robot's main application is to save people from disasters that can harm animals and humans it saves people by removing the stuff on top if them using its actuators. It can also detect metal underground, which can be useful to find land mines. These applications are mainly for saving people's lives.

This robot would be the ideal solution to saving people's lives after disasters. I think many countries will pay big money for this product.

Grappel Gun Claw Like Shovel Heat Sensors Claw Like Motion Detectors Claw Like Motion Detectors Claw Like Motion Detectors Claw Like Claw Like Motion Detectors

Our group is called S-32 Specialists in natural distater gear.