

Robots to the Rescue

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What is the purpose?

The purpose of this rescue robot is to gain the ability to enter dangerous environments with the intention of helping others. Some circumstances may be far too fatal for humans, therefore, having a robot to detect bombs or other threatening material would ensure the safety of human team members.



Background Information

The first bomb disposal robot was named The Wheelbarrow Mark 1. The idea was came about by Lieutenant-Colonel Peter Miller Of the British Army. In 1972, he decided to use an electrically powered robot which would then tow suspected devices, such as caer bombs. These precautions reduced contact of dangerous materials and humans. Due to difficult movement in the prototype, the Military Vehicles and Engineering Establishment in Chestery to adjust control and tracking systems.



Requirements

- A moveable car that can travel from destination to destination
- Camoflauge to provide disguise for the robot so that it is unrecognizable by the opponent
- A camera that is able to provide footage that will provide troops with safety awareness



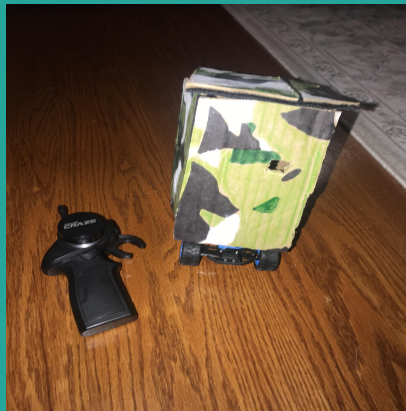
Brainstorming A Solution

I can create a similar model to the robot that is used in the army. This robot could be made up of store bought material that replicates the concept of the official device in a more simplistic manner.



Choosing the Best Solution

I discovered that I could use adhesive equipment to attach my GoPro wireless camera to an RC car from Costco. Next, I needed to use a lightweight piece of GoPro equipment to ensure that the car would be fully functional and able to move almost the weight of the GoPro. Finally, I would create a camouflage pattern on a piece of cardboard to ensure that it would be disguisable similarly to if it was used in the army. Then, I would cut the piece of cardboard according the measurements of the car and piece them together with velcro stripping. To test the product I had it detect a candle in my living room.





Developmental Work

Materials



- Remote Control Car
- Batteries
- GoPro Camera
- Black Sharpie, Green Marker, Chalk, Green Crayon
- Scissors
- Velcro strips
- Adhesive sticker



Build a Prototype / Design



Design & Redesign

Finding a Bomb

(candle set up in my living room)

Click on
video, then
tap space
bar

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The End

