MINE ROBOT

This is a GUI and camera enabled mine robot with human and harmful gas detectors inside a mine that can be of great help in case of mine collapse , chemical explosion etc.

FEATURES:

* A compilation of EMBEDDED, Robotics ,MATLAB and php
* User Friendly GUI .
* Wireless operation from anywhere throughout the world.
* Video streaming from inside the mine.
* Can be controlled wirelessly from anywhere throughout the world as it can be operated by putting the commands on cloud.

Other Applications:

1. Defense:-
2. To navigate using GPS and acquire information of the enemy territory
3. During wars the robot can act as a drone to fight enemies with minimum human loss.
4. Using the robotic arm, bomb diffusion processes can take place.
5. Detecting the land mines sites and cautioning the soldiers.
6. During network shutdowns the robot can change the transceiver mode to direct Radio Frequency communication.
7. Disaster Management:-
8. Small sized robot can fit through almost any hole and obtain surveillance of the external world situation.
9. Robotic arm can be used to lift and pick up heavy concrete in a disaster struck area.
10. Live video streaming can act as mode of communication between disaster victims and the control room personals.

Future Aspects:

1. By replacing the Transceiver module we can further extend the range of the control to around the globe control.
2. A more powerful and efficient microcontroller that can handle multiple operations at the same time and embedding a whole operating system in the microprocessor
3. During exceptional cases when the wireless communication somehow drops, certain sets of algorithms and object avoiding techniques will command the lost robot to return back to its origin
4. Introducing the GPS on the robot can help the user keep track of its position.
5. Analyzing the external inputs the robot own shall modulate its speed with multi-terrain tyres fit.
6. Robotic arm and weight lifters can be attached.
7. Human detection in a remote place can also be carried out.