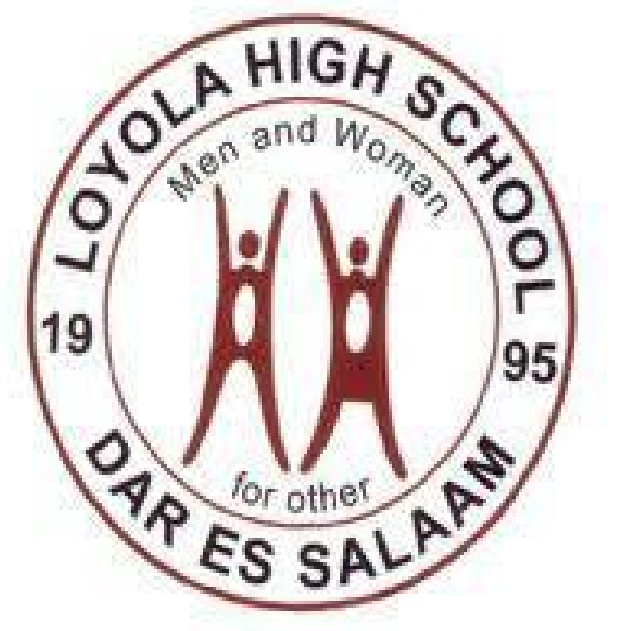




Application of Probe Technology in Research

93. Loyola



Isaac Thomas and Rahim Hussein

Introduction:

To probe is to explore or examine something especially with hand or an instrument. Probe technology is the use of unmanned instruments to explore or examine something. Probes are built for various purposes, i.e. space, Marine and many other fields, Hence, their types.

Our project is about the application of probe technology in research. We aim at introducing the use of unnamed instruments/probing devices in doing research i.e. Land survey



Method:

Our project has three main parts namely;

The probe (probing device), The Genesis (the transmitter) and the probe software.

The probe is a piece of engineering equipped with Camera, Sound tracker, Receiver, Robotics and other advanced Technologies. It has the ability to move on land, Carry its own power supply, Collect data from the field in various forms, send and receive transmissions. This device is the one that will be deployed to the field in the place of man.

The Genesis (Transmitter) is a small machine responsible for Plotting the Probe. It is responsible for sending and Receiving transmissions to/From the Probe, encode or decode them and procedures of the like.

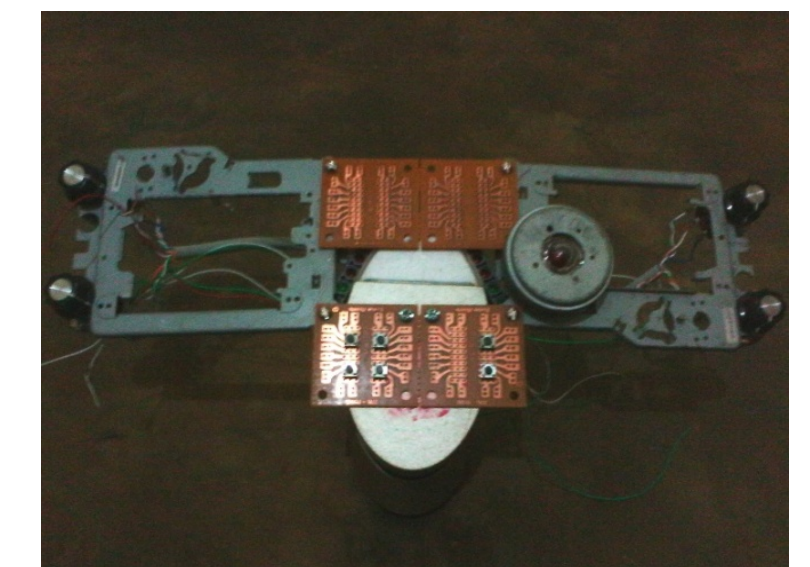
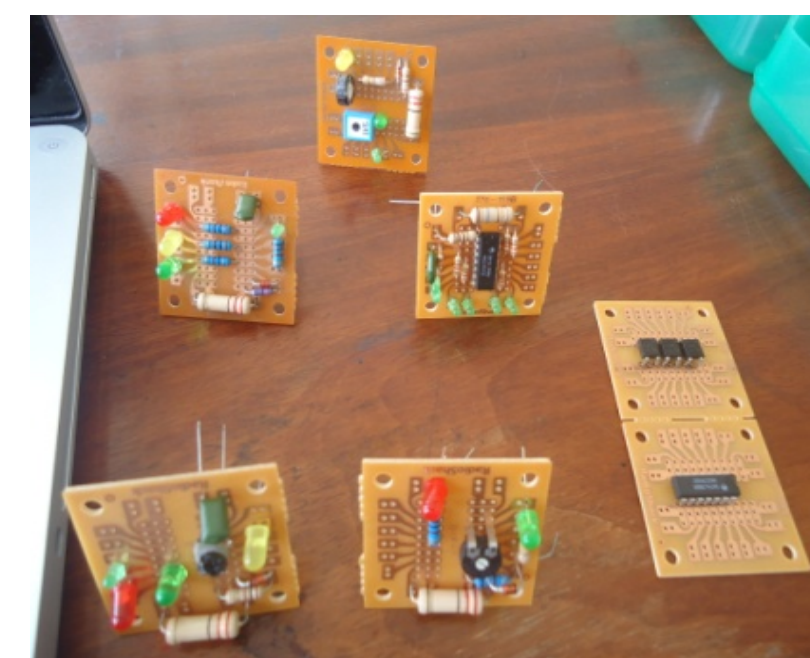
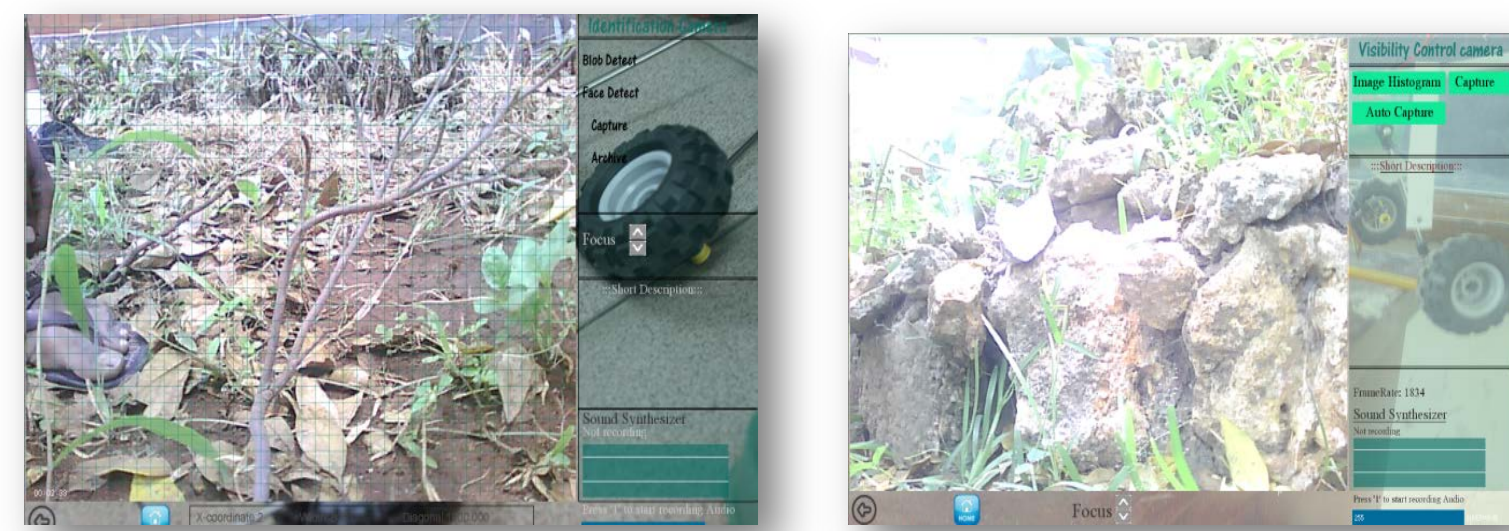
The Probe Software is a program we designed to help us view and manipulate visual data collected by the probe from the field, by using a computer.

We chose to divide our project into Three Parts so as we could collect more data, view the data clearly, manipulate the collected data and store the collected data for future reference. These are done through the specialization of the three parts of our Project.



Results:

The use of Probe technology has proven effective already in a certain extent. We have been able to conduct deployment of data collection by using the probe, the Genesis and the Probe Software. Example: We have been able to collect rock sample, sand sample, images and the like, from the field.



Sample images taken by the probe

The data above serves an answer to the question, "Can we use unmanned instruments/machine to do research?"

Of course the answer is "YES" regarding the data collected is as good as any collected by man himself, and perhaps even better.

Conclusions:

Can we use unmanned Machine to conduct research?

Can research be made more interesting through the use of probe technology?

Can research be made less cost full through the use of Probe Technology?

So far results show that, to a very remarkable percent, the Questions above have been answered. Our results are interesting and significant efforts that were put in designing and engineering or our project that resulted to a development of such a complex and unique set of equipment. These have enabled us to get such results.

The use of probe technology was mostly in highly expensive industry such as space Research, but through our research, we have proved that probe Technology can have multiple applications. We suggest that people take our project as initiative and inspiration to continue our current study in finding more application of probe technology i.e., in Marine research.

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References:

The Sources of information we used in our project are:-

The Internet eg. www.opencv.com, www.Buckysroom.com

National geographic magazines.

Books eg. Nasa exploration to mars, Modern world evolving machines and computer science and machine architecture.