ABSTRACT FOR HOLOGRAPHIC KEYBOARD

Description:-

We will try to make a form of computer input device whereby the image of a keyboard is projected onto a surface by an infrared laser projector and a physical image of a keyboard. When a user touches the surface covered by an image of a key, the device records the corresponding keystroke by using a camera which picks up finger movements and processes them to identify the key that has been pressed by the user and does the corresponding action on a computer screen with the help of bluetooth / usb device.

Components Used:-

a) USB/Bluetooth Camera- Rs 900 to 2000

b) Sensors

c) IR laser projector

d) Software that converts the coordinates to identify actions or characters

Plan of Action:

1st Week:

a) Start searching for and gathering the required components.

b) To start learning the skills which would be required in this project like microcontroller coding, Image processing, etc.

2nd Week:

a) Start forming a basic plan for the project.

b) Decide the circuits and wiring for the project and get it approved by mentors.

3rd Week:

a) Start working on the Image Projection.

b) Start working on processing the data from the IR sensors.

4th Week:

a) Start working on Identification of the key pressed.

b) Test the work completed in previous week.

5th Week:

a) Intensive testing and debugging of the project.

b) Give final touches to the keyboard design.

By the end of the project, we expect to learn some microprocessor coding, rudimentary Image processing, concept of using IR rays for detecting touch, etc.