

PROJECTOR KEYBOARD

TEAM GEEKS

ABSTRACT:

With the increasing use of technology, there is an increase in the comfort for the people. The world would become a place more sensible and much more smaller. As there is use of projectors everywhere why not use it to make some virtual input devices.

COMPONENTS REQUIRED:

- (1) Mini Projector
- (2) IR light sensor
- (3) Camera
- (4) microcontroller chip
- (5) Basic electronic components
- (6) A stand

APPROACH :

A stand is used to keep the mini projector, camera and IR light sensor aligned. Using the mini projector, the keyboard is projected on the surface. When you put your hands on the keyboard the IR light sensor detects your hand with the help of heat in your hands. Then the camera records what you type, with help of image processing this image input is converted into the required input for the computer using the microcontroller chip.

TIMELINE:

- Week 1 & 2:

Research and study about the image processing and the project. Learn Image processing and about the IR light sensor and the microcontroller chip.

- Week 3:

Buy the hardware components and design them with proper understanding

- Week 4:

Coding part for the image processing and the hand detection. And construction of the device.

- Week 5 & 6:

Testing and debugging the device.

SAILENT FEATURES

Can be used as a compact keyboard.

It is very light and is portable.

Can be used as a mouse also.

Can be connected to computers with linux operating system.

ESTIMATED COST

Rs.5000 approximate

IMPROVEMENTS (If time permits)

Can be integrated with bluetooth and with battery to make it wireless.

Can also be connected to the windows OS.