WIRELESS MORSE CODE TRANSMITTER

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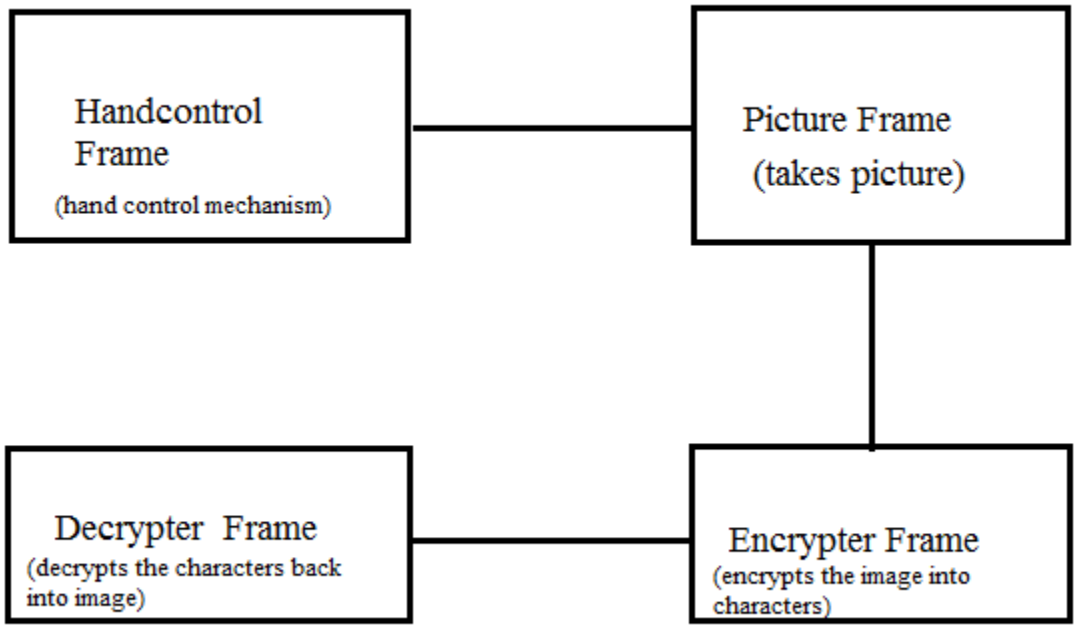
SECTION : 'A', SEM-1

BRANCH : ELECTRONICS AND COMMUNICATION

ACKNOWLEDGEMENT

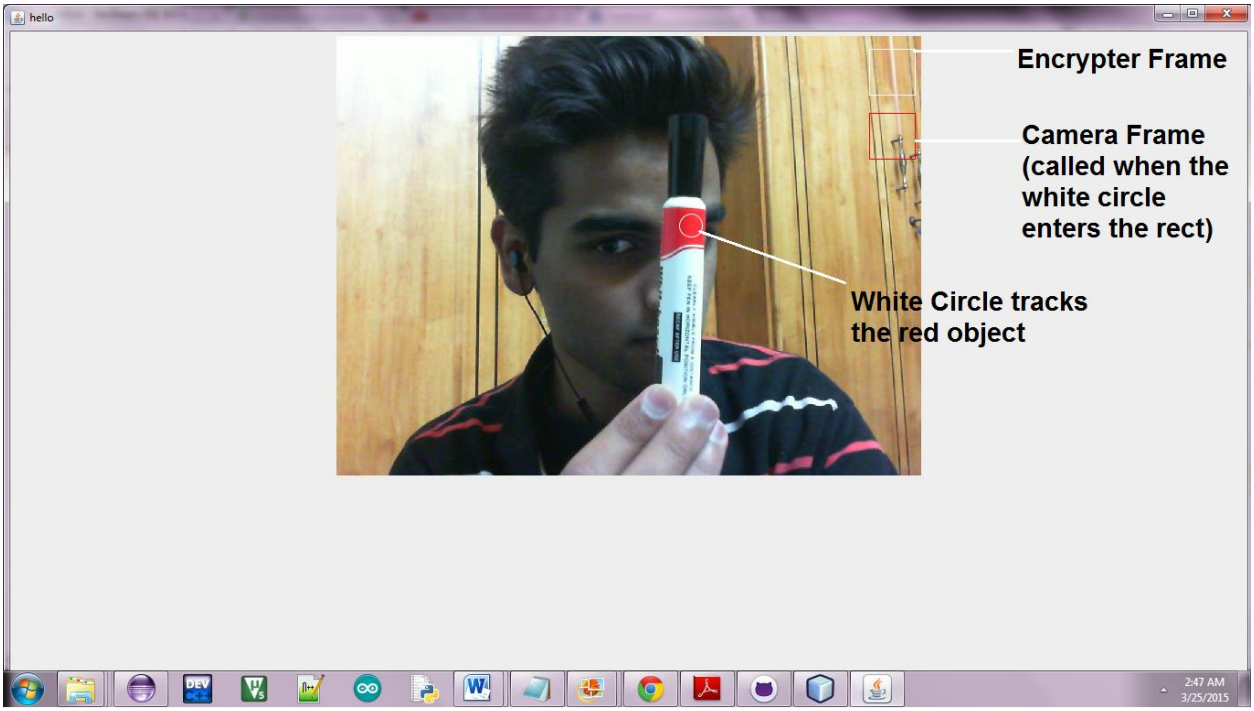
I sincerely thank the entire Jed-I team for giving us this opportunity to apply the many principles which I have learnt till now and to utilize them in a practical manner and to go in depth into the mechanisms behind various machines.

Body Diagram Of The Program

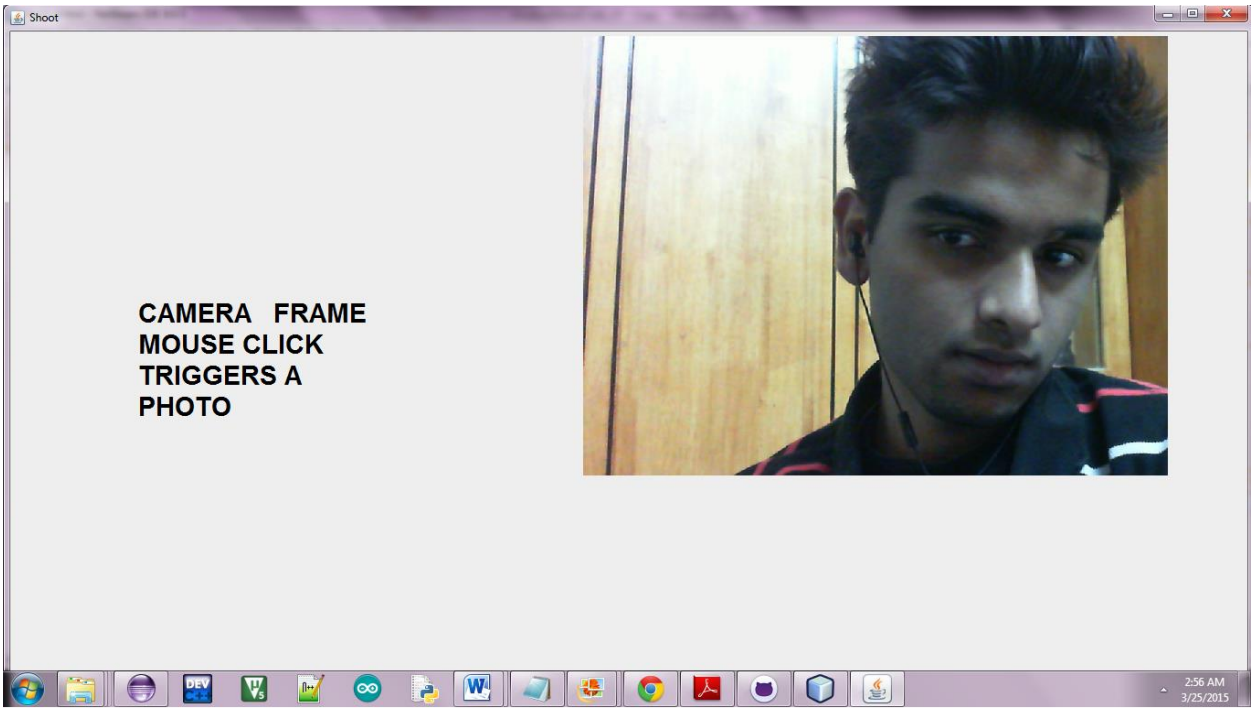


Hand Control Frame

This frame is used to control the program wirelessly using red pointer light

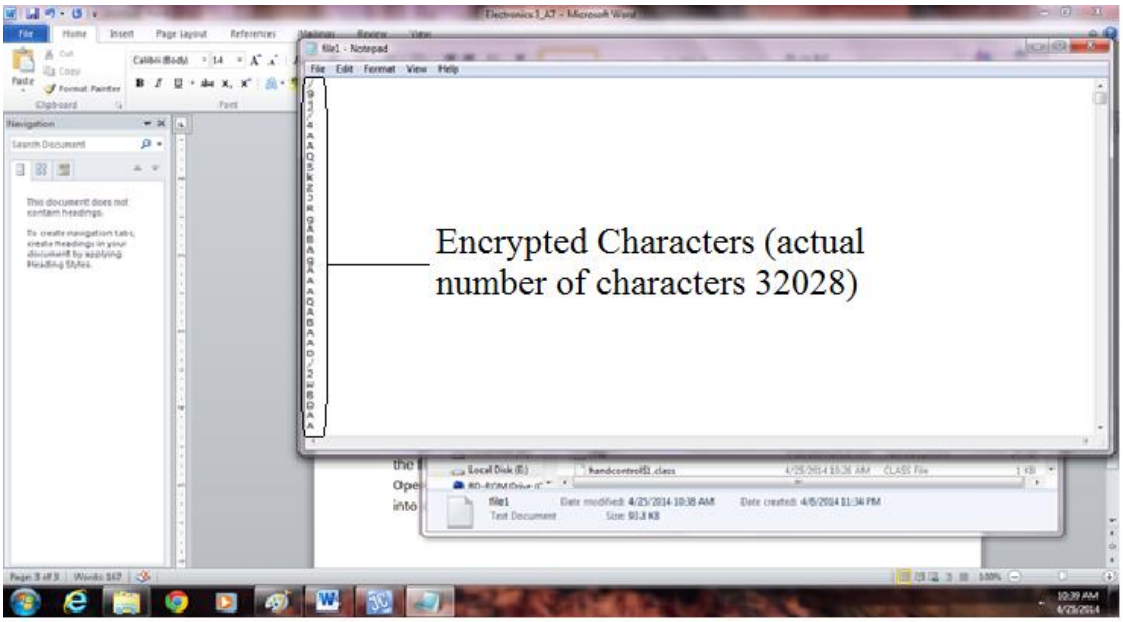


When the white circle tracking the red pixel enters the white rectangular box , the camera frame opens.

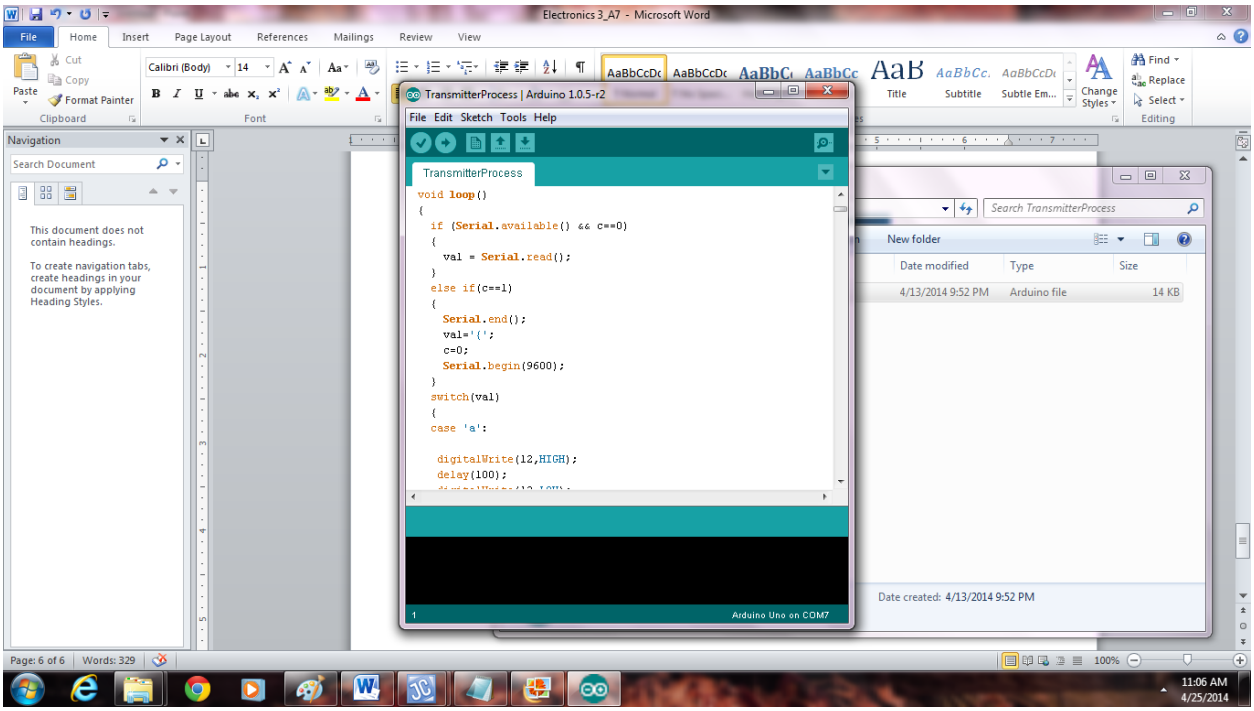


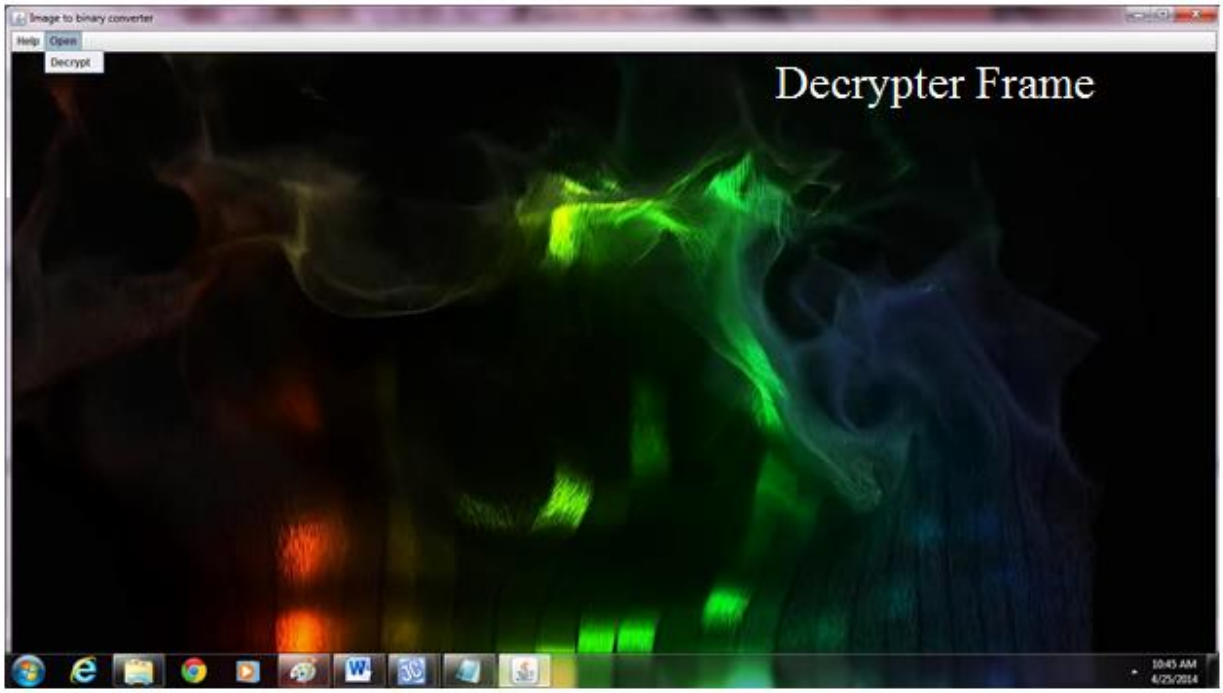
Inside the camera frame , a mouse click event takes a photo of the current frame.

The decrypter frame contains certain options in the toolbar such as file and help, the file option contains various suboptions such as New, Open etc. When the Open option is clicked the photo that was taken in the camera frame is encoded into characters.



These encrypted characters are then sent to the decrypter program present on another laptop through morse code using an Arduino operated rf transmitter. Which decodes the characters back into the image.

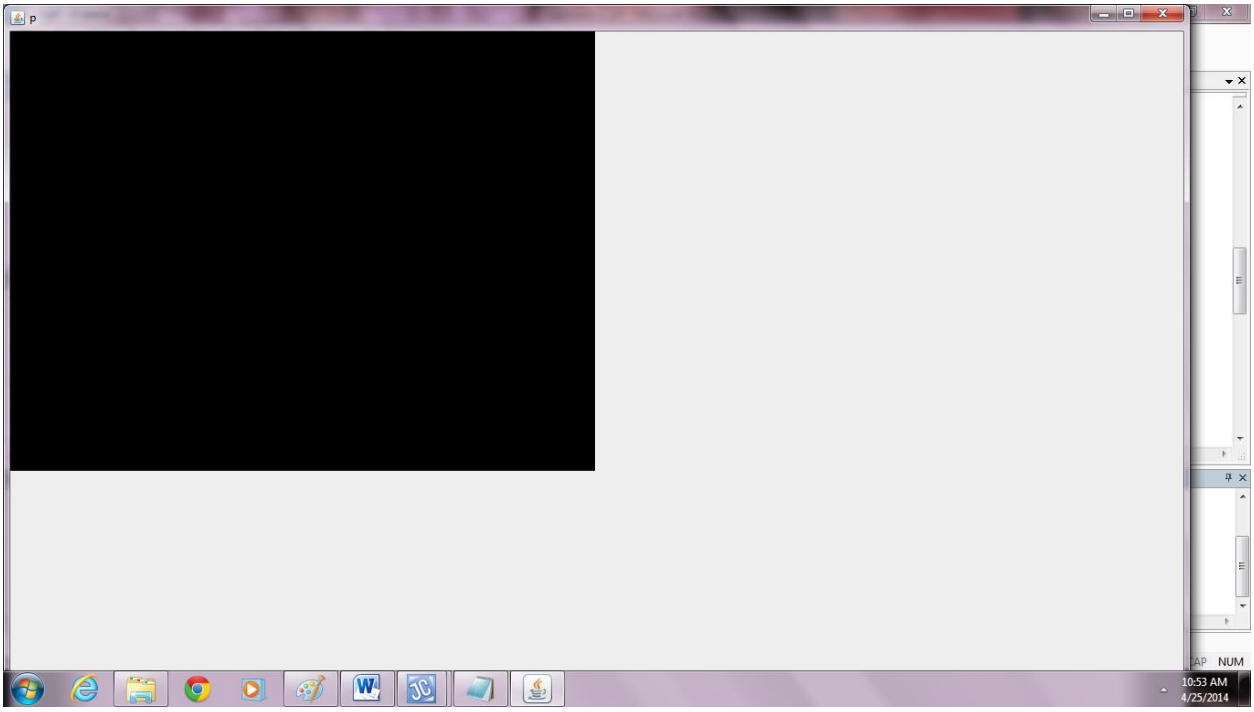




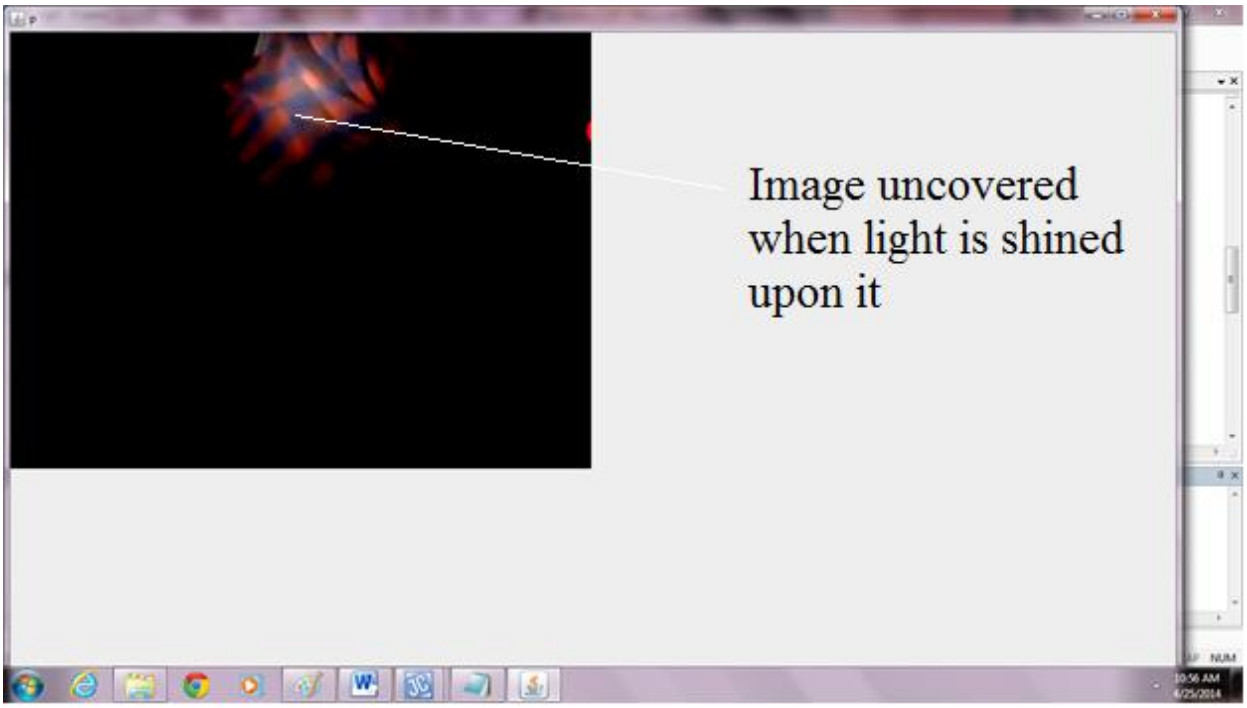
The decrypt option present in the toolbar , decryptes the characters sent to the laptop via an rf transmitter controlled by an Arduino, into an image.

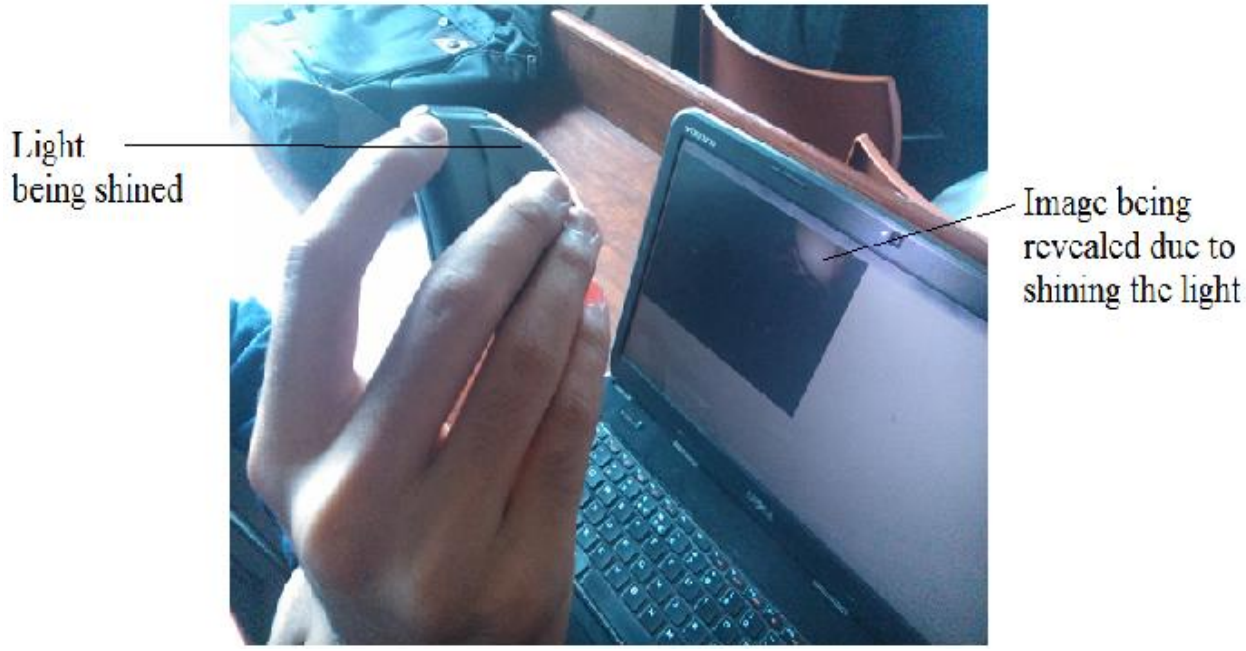
PROBLEM INVOLVED IN TRANSMISSION

The problem which exists in wireless transmittance of data is that anyone can hack and hence receive the data being sent, usage of any standard encryption technique can still be cracked by highly profession hackers. To prevent this possibility I used the principle of fractal which is hiding the image in plain sight which is ofcourse the last place any hacker would look. Once decoded via the decrypter program, a black frame is displayed.



The black frame displayed actually conceals the image, but this image can been seen only when a flashlight is shined on the webcam





CONCLUSION

Wireless morse code transmitter was achieved using hardware and software integration.