Project ID: LCT1-02

Supervisor:
Prof. Chin-Tau Lea

Students:
Lam Shu Pui (00123187, ee_lsp@stu.ust.hk)
Lau Hang Kin (00245935, ee_lhkab@stu.ust.hk)
Yan Ka Lun (00255667, eg_yklaa@stu.ust.hk)
The aim of our project was to develop a home security system which can be used to monitor a specific site, at a very affordable cost.

The objective of this project is to further improve the system that was developed by the previous FYP groups. Our project utilized the Bluetooth Technology for transmitting the image data wirelessly between the Webcam and the Server PC. To further improve the system developed by the previous FYP groups, we focused on the compression in the MCU circuit, the security level of the server-client connection over the Internet and if possible, further improve the frame rate.
Client (Browser)
Sends requests and receives data from Server.

PC (Apache Server)
Sends data to client over the Internet

Master EBDK
Sends data to PC (Apache Server)

Slave EBDK
Sends data to Master EBDK

MCU circuit
Act as a bridge between camera and EBDK.

Web Cam
Serial Connection

Serial Connection

The Internet

Wireless transmission over Bluetooth
Results

This is the original RAW picture captured by the camera.

JPEG image output after processing on the Server Computer.

Finally, the specific site can be viewed over the Internet by Web browsers.