

Aim: Develop a real time application like smart home with following requirement when user enters into house the required appliance like fan & light should be switched on. Appliances should also get controlled remotely by a suitable web interface. The objective of this application is student should construct complete smart application in group.

Theory :

① Basics-send emails using python

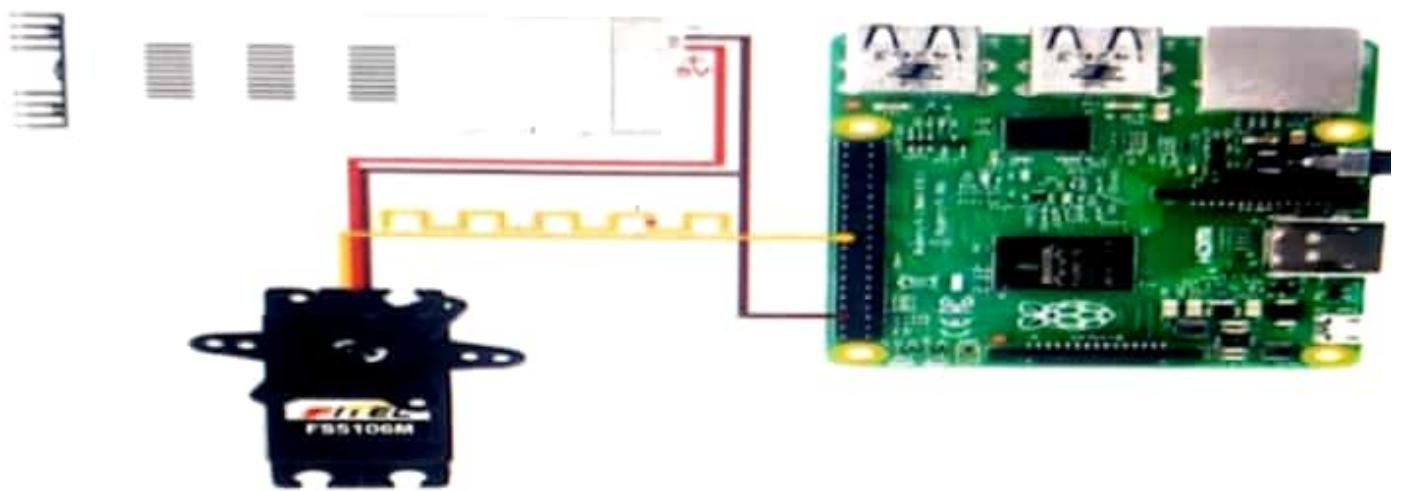
- The smtplib module of python is basically all you need to send simple emails, without any subject line or such additional information
- But for real emails you do need a subject line and lots of info may be even pictures & attachment
- you need a combination of both email and smtplib

② How to send emails :

- Set up the SMTP server and log into your account.
- Create the MIMEMultipart msg object and load it with appropriate headers for from to and subject fields
- Add your msg body
- send msg using the SMTP server obj

③ The smtplib :

- the smtplib module defines an SMTP client session object that can be used to send mails



Fig

to any internet m/c with an SMTP or ESMTP.
SMTP stands for simple mail Transfer Protocol.
The smtplib module is useful for communicating with mail servers to send mail.
- sending mail is done with Python's smtplib using an SMTP server.
- Actual usage varies depending on complexity of the email and settings of the email server.

④ Servo Motor :

- A servo motor is a combination of DC motor position control system and gears. Servos have many application in the modern world and with that they are available in diff shape and sizes. We will be using Sango servo motor which is one of the popular and cheapest one.
- A servo motor mainly has three wires one is for the voltage another is for ground and last one is for position setting.
- A servo motor is a combination of DC motors position control and gears, servos have many application in the modern world and with that they are available in diff shape & sizes.
- A servo motors mainly has three wires one is for the voltage and other ground and connected to power. Brown to ground & orange to signal.

⑤ Steps :

- Create the lock/unlock application to control the servo motor lock change its owner and

- group as www-data location = /var/www/
- write the application to read html the image and send it as email attachment to the user location /var/www/html.

Conclusion,

Thus we have developed smart home system