

Lighting Control for Izakaya small lighted models:

J. Nolan

Licensed: Public Domain (for information and learning only)

21-Dec-2023

Steps:

- Setup raspberry Pi with latest 64bit (bookworm).
 - Make Hostname: lighthouse
 - Sudo raspi-config
 - System Options -> Hostname
 - Turn on SSH (useful for debugging later):
 - In raspi-config choose Interface Options->SSH-enable
 - Or add a blank file called: SSH to the bootfs partitioning
 - Turn on VNC
 - In raspi-config choose Interface Options->VNC-enable
 - Reboot
- Transfer the files below to your Pi using ftp/scp/gmail/ect.
 - /home/pi/.config/wayfire.init
 - This file boots the python script that runs the on off timer
 - /home/pi/lighthouse/boot.sh
 - Make this executable: `chmod +x boot.sh`
 - This is called by the wayfire.ini on boot up.
 - It will launch one instance of `/var/www/html/lighthouse -timer`
 - Lighthouse -timer stays resident in memory and sets the lights all on and off based on the contents of `/var/www/html/.startstop` which is created by setting the time
- VNC into lighthouse.local
- At command prompt install the following:
 - Sudo apt-get update
 - Sudo apt-get upgrade
 - Install Apache 2:
 - `sudo apt install apache2 -y`
 - Give ownership to all files and folders in the `/var/www/html` directory to the `www-data` group:
 - `sudo usermod -a -G www-data pi`
 - `sudo chown -R -f www-data:www-data /var/www/html`
 - Install PHP:
 - `sudo apt install php -y`

- Download files from my github:
 - In a directory like /home/pi/lighthouse for example
 - git clone <https://github.com/totorodad/lighthouse.git>
- Copy the files as needed:
 - cp index.php izakaya.png lighthouse.py styles.css /var/www/html
 - Make files bootable:
 - chmod +x /home/pi/lighthouse/boot.sh
 - chmod +x /var/www/html/lighthouse.py
 - chmod +x /home/pi/lighthouse/lighthouse.py
 - Add the following two lines to the end of /home/pi/.config/wayfire.ini
 - [autostart]
 - Terminal = lxterminal -e \$HOME/lighthouse/boot.sh
 - Give Apache (www-data) user the ability to run python as root without password:
 - Sudo -s
 - nano /etc/sudoers.d/010_pi-nopasswd
 - Add this line to the bottom:
 - www-data ALL=(ALL) NOPASSWD: ALL
 - Note to user. This may create a cybersecurity hole. Use this technique on systems protected by firewall or other means.
- Reboot
- Open web browser to lighthouse.local
- Turn lights on/off to verify the lighthouse.py python program is working.
- Set and test the timer.