**Lighting Control for Izakaya small lighted models:**

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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: /usr/bin/python3
* 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.