



Audio/Video setups for 2020 12/2/20

Santa Inflatable at the parking lot entrance.

Since there is no power at that location, the system is run on a 12 volt battery with an inverter.

The ho-ho-ho track is composed of several different tracks, space 5 seconds apart. The composite track is 1:47. This is repeated to make a 10 hr. track. The file name is **Ho_ho_ho Tracks_10_hrs.mp3**. It is a 45Mb file and is stored on a micro SD card. The file is played on a DF player.

The jumper between the ADKEY_1 and GND insures that the track starts on power up.

When the power is supplied by the USB port on the inverter, there is a buzz in the audio. The 5 volt wall wart eliminates the buzz.

The components are mounted a roll around cart that can be towed by a golf cart.

The system may not last a full day on one battery. So, a backup is mounted on the cart.





Yule Log

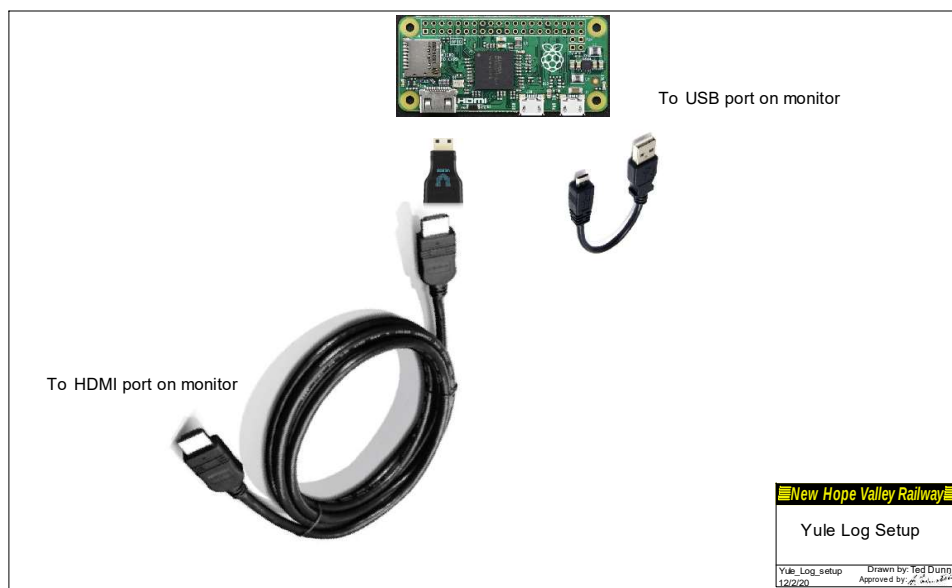
The yule log video is run on a Raspberry Pi 0

The Yule log file is **YuleLog2020.mp4**. It is a 100 second mp4 file, played back by **omxplayer** in loop mode.

Omxplayer is run on startup by the shell script **autoexec.sh**. Both the mp4 file and the shell script are in the **/home/pi** directory .

The shell script has one line: **omxplayer --loop --aspect-mode fill YuleLog2020.mp4**

See below for auto start up details.



To run a Python program automatically on startup

This method will start a Python Program in a terminal widow.

The program is **xyz.py** and it is in the **/home/pi/abc** directory.

To do this, an **autoexec.sh** file is created in the startup directory, **/home/pi**. This is an executable linux shell file. It will run the Python file in the correct directory.

To run this shell script on startup, it must be in the **/home/pi/.config/autostart/desktop** file.

- 1- Create the **autostart** directory in the **/home/pi/.config** directory.
 - a. Start from the **/home/pi** directory.
 - b. Change to the **.config** directory: **cd .config**
 - c. Create the **autostart** directory: **mkdir autostart**



d. Change to the autostart directory: **`cd autostart`**

2- Create the **.desktop file**: **`sudo nano .desktop`**

a. Enter the follow 3 lines in the text editor:

i. **`[Desktop Entry]`**

`Type = Application`

`Exec = lxterminal -e ./autoexec.sh` (The **`./`** is used to run executable files.)

ii. Press **`ctrl-o`**

iii. Press **`Enter`** to save the file.

iv. Press **`ctrl-x`** to exit the text editor.

3- Create the **`autoexec.sh`** file to run the **`xyz.py`** Python program in the **`/home/pi/abc`** directory.

a. Start in the **`/home/pi`** directory.

i. Create the **`autoexec.sh`** file: **`sudo nano autoexec.sh`**

ii. Enter the following 2 lines:

`cd abc`

`python xyz.py`

iii. Press **`ctrl-o`**

iv. Press **`Enter`** to save the file.

v. Press **`ctrl-x`** to exit the text editor.

b. Make the **`autoexec.sh`** file executable **`chmod +x autoexec.sh`**.

Note. The **`autoexec.sh`** file is not necessary. To run the file it could be placed in the last line of the **`.desktop`** file: **`Exec = lxterminal -e ./python home/pi/abc/xyz.py`**. The advantage of the **`autoexec.sh`** file is that it makes it easier to change the autorun program.