

Programming the LED's of your crane with the Joystick.

The crane has the ability to display up to four different colors when illuminating the LED's. Each color is displayed for a period of time before displaying the next color. It is not necessary to use all four colors if you do not wish to.

There are three options that need to be set to display a color. They are known as Red Color, Green Color, and Blue Color. Since four colors can be displayed, they are labeled in the options as Red Color 1, Green Color 1, and Blue Color 1 for LED color 1. Red Color 2, Green Color 2, and Blue Color 2 for LED color 2 and so on.

The easiest way to select a color is off the "Basic Color Chart" located on the next page or follow the instructions under "Advance LED Color Settings" to create your own colors. To use a color off the "Basic Color Chart" simply pick a color swatch and remember the values next to the R, G, and B letters.

Open the front crane door and press the "PROG" button. Push the joystick forward until option 28 is displayed on the left display. This is the option "RED Color 1". Push the joystick either left to decrease the value or to the right to increase the value until the number on the right matches the value for "R" in the color Swatch. Now move the joystick forward and the left display will show 29. Push the joystick left and right until the value for G is shown in the right display. Push the joystick forward to change to option 30 displayed on the left display. Move the joystick left and right until the value for B is shown in the right display.

****NOTE**** If the value for "R", "G", or "B" is 100 you must enter 99 instead since the display is only two digits.

Repeat this for LED colors 2, 3, and 4. If only one color is desired, then set all four LED colors the same. If only two colors are desired, set LED colors 1 and 2 to one color and then set LED colors 3 and 4 to another. If you are only using two colors and want to cycle the colors faster, then set LED color 1 and LED color 3 to one color and then set LED color 2 and 4 to another color.

Advance LED Color Settings

To create your own colors you need to download or use a online RGB color code chart. The color chart you use should be a 8 bit color chart. The color chart will have a value for R,G,and B from 0 to 255. Since the crane uses a percentage system you will have to convert the values on the chart by dividing the number by 255 and then multiply the result by 100. So if R has a value of 154 you would divide this by 255 which will give you ".6039". Now multiply this by 100 and the result is 60.39. The value you would enter to the crane is 60 ignoring the digits after the decimal point.

For example, if you looked online and find the color light sea green which is R=32, G=178, B=170. Start by dividing the value of R (32) by 255 which is 0.1254 and then multiply by 100 giving you 12.5 or 12. Then take the value of G (178) and divide it by 255 which is 0.6980 and then multiply by 100 giving you 69. Finally take the value of B (170) and divide it by 255 which is .6666 and multiply it by 100 giving you 66. The values you would enter to the crane would be 12 for Red LED color, 69 for Green LED color, and 66 for Blue LED color.

The formula would be *"RGB Color Chart Value / 255 X 100 = Color percentage used by the crane"*.

Basic Color Chart					R = 75 G = 100 B = 0
R = 0 G = 100 B = 75	R = 25 G = 100 B = 75	R = 50 G = 100 B = 75	R = 75 G = 100 B = 75	R = 0 G = 100 B = 50	R = 25 G = 100 B = 50
R = 100 G = 0 B = 75	R = 100 G = 25 B = 75	R = 100 G = 50 B = 75	R = 100 G = 75 B = 75	R = 100 G = 100 B = 75	R = 50 G = 100 B = 50
R = 100 G = 0 B = 50	R = 100 G = 25 B = 50	R = 100 G = 50 B = 50	R = 100 G = 75 B = 50	R = 100 G = 100 B = 50	R = 75 G = 100 B = 50
R = 100 G = 0 B = 25	R = 100 G = 25 B = 25	R = 100 G = 50 B = 25	R = 100 G = 75 B = 25	R = 100 G = 100 B = 25	R = 0 G = 100 B = 25
R = 100 G = 0 B = 0	R = 100 G = 25 B = 0	R = 100 G = 50 B = 0	R = 100 G = 75 B = 0	R = 100 G = 100 B = 0	R = 25 G = 100 B = 25
R = 100 G = 0 B = 100	R = 100 G = 25 B = 100	R = 100 G = 50 B = 100	R = 100 G = 75 B = 100	R = 100 G = 100 B = 100	R = 50 G = 100 B = 25
R = 0 G = 0 B = 100	R = 0 G = 25 B = 100	R = 0 G = 50 B = 100	R = 0 G = 75 B = 100	R = 0 G = 100 B = 100	R = 75 G = 100 B = 25
R = 25 G = 0 B = 100	R = 25 G = 25 B = 100	R = 25 G = 50 B = 100	R = 25 G = 75 B = 100	R = 25 G = 100 B = 100	R = 0 G = 100 B = 0
R = 50 G = 0 B = 100	R = 50 G = 25 B = 100	R = 50 G = 50 B = 100	R = 50 G = 75 B = 100	R = 50 G = 100 B = 100	R = 25 G = 100 B = 0
R = 75 G = 0 B = 100	R = 75 G = 25 B = 100	R = 75 G = 50 B = 100	R = 75 G = 75 B = 100	R = 75 G = 100 B = 100	R = 50 G = 100 B = 0

Changing the Audio Sounds of your Crane

A new exciting feature of your crane is the ability to customize the sounds and attract music. Located on a removable memory card are nine audio files. These files are known as “WAV” files or “Waveform audio files” which is used by PC and Macintosh computers to produce audio. New audio files can be easily created with your home computer using ready available software.

There are nine files on the memory card and each is played at different times during the operation of the crane. The playback duration of each file is in relation to where they are used during the operation of the crane. If you choose to customize your audio files keep in mind that if you use audio that has a longer playback duration it could be interrupted to play another sound file.

The file format used in your crane is called “WAV” and must be saved in mono format. Stereo WAV files will not play. They must be in 8-bit format and be recorded at 22050HZ (22Khz). They must not contain any playlists or artist information (Extra Chunks) within the file.

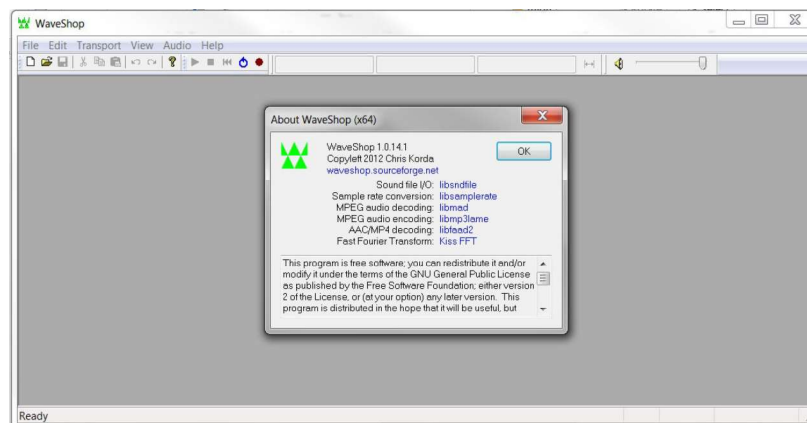
The following is the list of file names with their play duration and when they are used.

- 1) “music.wav” - 12 seconds and it is the music played during game play.
- 2) “win.wav” - 11.5 seconds and it is the sound that is played when a prize is won.
- 3) “lose.wav” - 1.6 seconds and it is the sound when the player did not win a prize.
- 4) “oclaw.wav” - 2.1 seconds and it is the sound that is made when the claw is opened.
- 5) “cclaw.wav” - 1.3 seconds and it is the sound that is made when the claw is closed.
- 6) “coinin.wav” - 1.6 seconds and it is the sound that is made when a coin pulse is detected.
- 7) “dclaw.wav” - .95 seconds and it is played as the claw travels down.
- 8) “attract.wav” - 12 seconds and it is played during the attract mode.
- 9) “ptmusic.wav” - 12 seconds, used only in WET cranes, and is played when the player plays the right side.

We recommend the audio program Wave Shop by SourceFORGE.net.

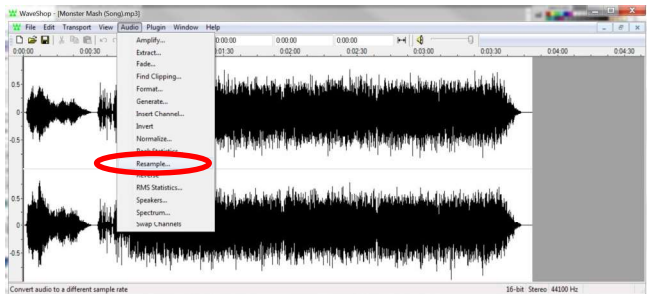
It can be downloaded at:

<http://waveshop.sourceforge.net/download.html>

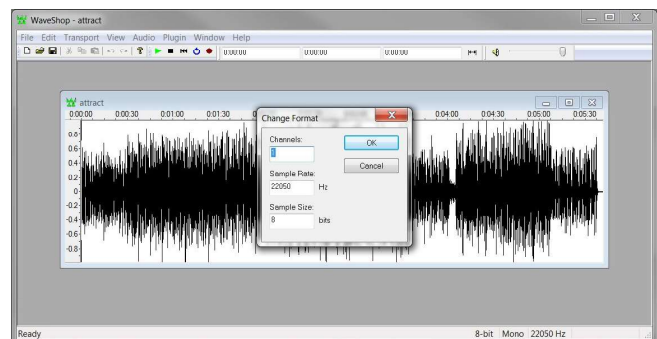
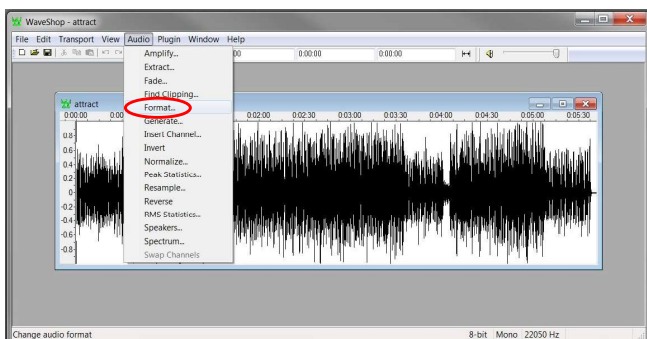


Converting an Existing Wave File Example using Wave Shop.

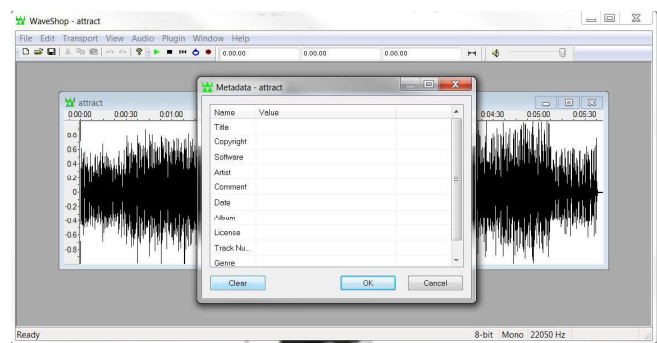
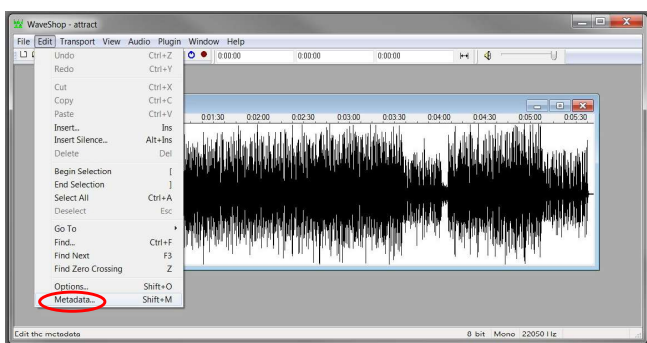
The source of the audio can come from numerous sources like MP3 files, Audio music disks, online, etc... You can even create your own sound using your computer. Once you have created your sound file, you need to ensure the crane will be able to play it. Follow these steps using Wave Shop to convert your audio file.



The first step is to make sure the format of the audio file is in a proper format for the crane to be able to play the audio file. Start Wave shop and load the audio file. Under the pull down “AUDIO” select the command “RESAMPLE”. Change the sample rate to 22050 and click “OK”.

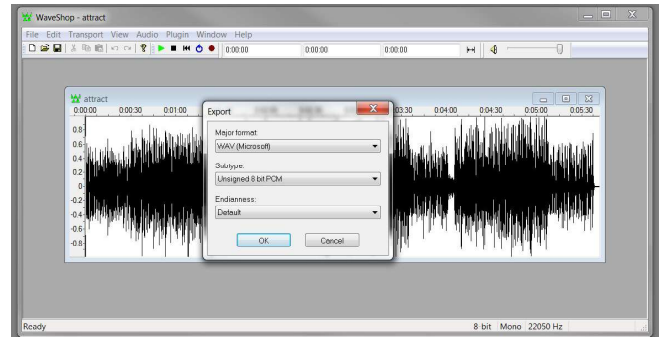
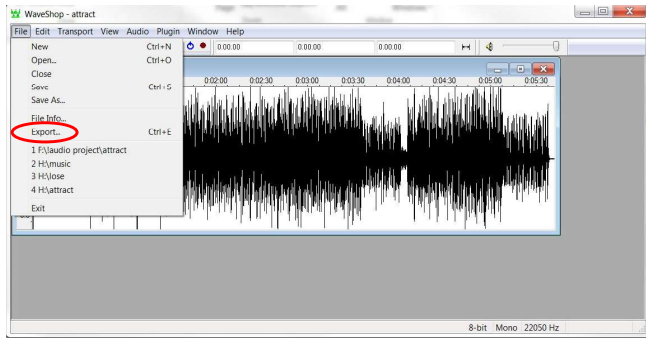


The next step is to left click under the pull down “AUDIO” and select the command “FORMAT”. Change the audio channel to 1, the sample rate will already be at 22050, and change the sample size to 8. Do not use the format command to resample the audio. The results will sound like chipmunks are at work.



The next step is to remove any metadata or extra chunks of information embedded into the audio file. Under the pull down “EDIT” select the command “Metdata..”. When the dialog box appears, click on the “CLEAR” button. This will remove all any extra information like artist, title, etc...

Converting an Existing Wave File Example using Wave Shop.



The last step is to save the file. Under the pull down “FILE” select “Export”. Then select Wav (Microsoft) for the format, Unsigned 8 bit PCM for the subtype, and Default for the Endianness.

Some Audio files will be too long to play as music or attract audio. This software allows you to cut and create new audio loops. Using the left mouse button, if you press and hold the left mouse button, you can highlight a section of audio. Under Transport, you can select “loop” and then play. This will allow you to hear your highlighted section only. It will loop back to the beginning of the highlighted audio.

If you press and hold the left mouse button at either the beginning or end of the highlighted section, you can change starting and ending positions. Once you are happy with your selection, under edit, select “copy”. It will appear to do nothing but it has copied the audio to the clipboard. Now under “FILE”, select new, then under “EDIT” select paste. Under “VIEW” select “Zoom in” until you see the wave form again. Now you can save this as your audio loop as a wav file.