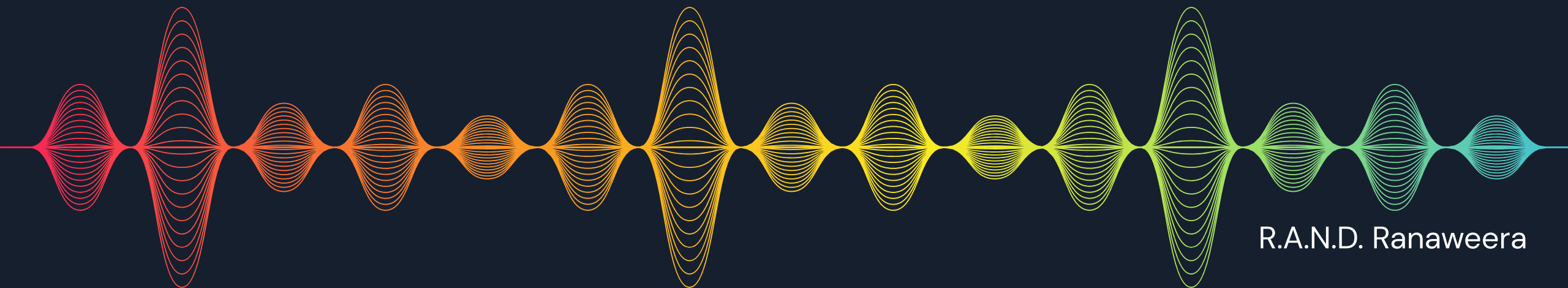


Guitar Effects Pedal

With ATmega32

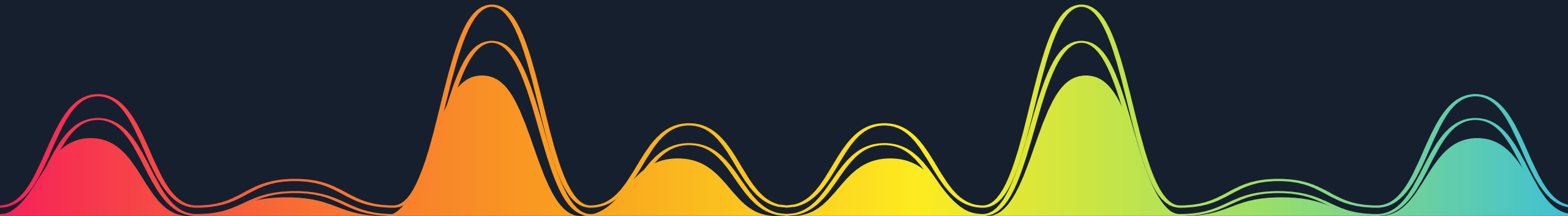


R.A.N.D. Ranaweera

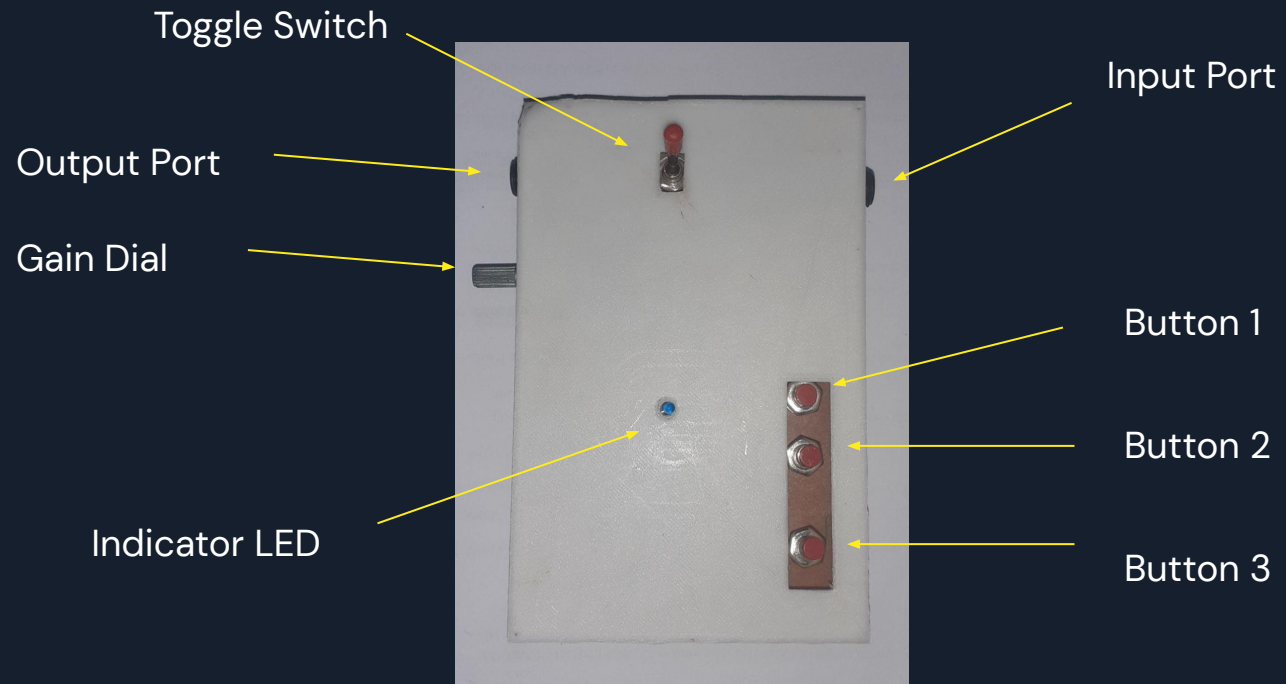
What you need..

The following items should be available to use the effects pedal.

- A DC 5V transformer or a power pack with a barrel jack output.
- A musical instrument with an audio output port. (preferably a guitar)
- Two 6.35mm audio cables.
- An audio device which can take input signals and output them.
- Audio jack converter(If required)

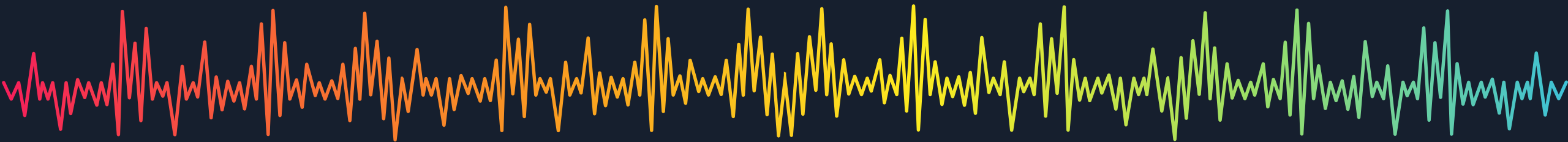


Identifying the parts..



How to use..

- Plug the audio cable in to the musical instrument of your choice.
- Check whether the toggle switch is in the “down” position.
- Then plug the other end into the input port of the Effects Pedal (right side).
- Plug the other audio cable to the other port of the Effects Pedal and the output Audio device.(Speaker)
- Use a 6.35mm to 3.5mm convertor if the audio device doesn't support 6.35 plugs.
- Turn on the audio device.
- Connect the 5V power supply to the Effects Pedal. And check whether the bypass effect is audible through the speaker.
- Then toggle the toggle switch to the “Up” position.
- Adjust the dial in the left side if there is any noise.
- Enjoy the effects pedal.



Multiple effects..

The Effects Pedal has 4 modes of operation in addition to the bypass mode. Initially the Effects Pedal is most likely to be on "Clean effect". Then if the Button 3 is pressed, the currently active effect will toggle between the following effects.

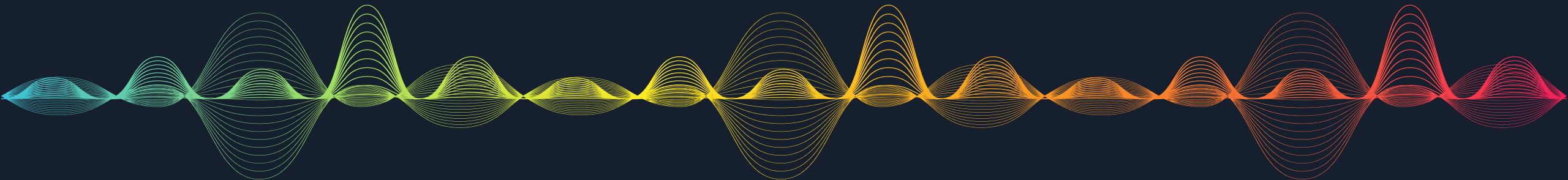
Clean

Distortion

Fuzz Distortion

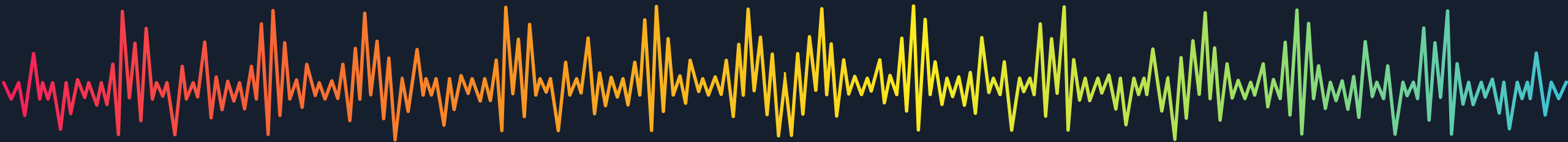
Bit-Crusher

In every effect except the default "Clean effect", the intensity of the effect can be increased by pressing Button 1 or reduced by pressing Button 2.



How to Use The Input Buttons and Dial

- In distortion setting, the Buttons 1 and 2 can be used to increase and decrease the distortion threshold.
- In the Fuzz Distortion setting, the buttons 1 and 2 increase and reduce the fuzz threshold limit.
- In Bit-crusher setting, the buttons 1 and 2 will increase or decrease the bitcrushing intensity.
- With each button press, the indicator LED will blink to acknowledge the user input.
- Dial can be used to get extra boost by saturating the operational amplifiers but its not recommended. The dial is originally implemented to reduce the input noise.





Thank You



R.A.N.D. Ranaweera
Email: nisithadranaweera@gmail.com
Contact No: 071-4115497