

# Tree Fall Sound Replaces 18 Components with One LogiSwitch NoBounce IC



Tree Fall Sound ([www.treefallsound.com](http://www.treefallsound.com)) was founded by Randall Reichenbach, an electrical and software engineer. His

passion has always been music. He's been building effects pedals and other musical gadgets since the 1980s. He has always been obsessed with tone, usability and clever features and has long desired the ability to store awesome presets, recall them in real time, and control the effects in unique ways. He wanted a system where he could code his own effects. This was the genesis of the founding of Tree Fall Sound and the development of pi Stomp!™.

*"I love the LogiSwitch LS19! Before I found it, I was using simple RC debounce (2 resistors, 1 cap per channel) plus software debounce. Your chip replaces 18 parts with 2 solder pads each. It reduces our customers' soldering by over 50% and performs so much better. The LS19 IC is used to debounce the mechanical footswitches and encoders which are both notorious for being rather bouncy and generally don't play well with microcontrollers without some kind of hardware debounce."*

Randall Reichenbach, Tree Fall Sound Founder & CEO



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## Key Challenges

- Improve switch debounce
- Reduce parts count
- Simplify product assembly

## LogiSwitch Solution

- NoBounce technology dramatically improved switch debounce
- One LS19 replaced 18 parts
- End customer's soldering reduced by over 50%

pi Stomp! is a do-everything open expandable platform, easily modifiable by anyone not too afraid of Linux, Python, etc. pi Stomp! utilizes Raspberry Pi and high-definition sound cards along with some open-source software such as LV2 (plugin format) and MOD/MODEP.



## About LogiSwitch

LogiSwitch was founded in 2016 by Mike Pelkey, a serial inventor and entrepreneur who has a long engineering career in industrial automation.

LogiSwitch's NoBounce™ line of ICs and switches is a result of Mike's 40+ year career in electronic design engineering where he developed switch bounce solutions for automation applications.

Not only does the LogiSwitch NoBounce technology eliminate switch debounce, but it also adds other electronic features such as active high or active low outputs, immediate (5  $\mu$ s delay) output in the unique handshake mode, and no additional components.