

# SB-FireFly Hacks: Round 1

Posted by Chris T on July 3, 2012

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Jeremie, our engineer and the brains behind the [SB-FireFly](#), can't seem to put the thing down even though it's all done and released. He's been hard at work figuring out what it's capable of, and figures that the hardware and framework could be used for a Micro-TV-B-Gone broadcaster, IR code repeater, and even a tiny robot controller. This week, Jeremie turned the SB-FireFly into a countdown timer and even a 'Twinkle Grenade'. Check out the hack descriptions below for more information.

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## SB-FireFly Countdown Timer

The inspiration for this hack comes from a certain Solarbotics Head-Geek burning up too many Freeduinos in the re-flow oven... I mean, we had trouble cooking hardboiled eggs... yeah... that's it. A permanent 3 minute timer was needed to save the innocent PCBs... er... eggs.

**Additional Hardware required:** Needs a [Piezo Buzzer](#) soldered to the expansion port from S (PB3) to G (GND).

**Code:** [Download here](#)

### What it does:

Turns an LED on then beeps at the 1 minute mark

Turns 2 LEDs on and beeps at the 2 minute mark

Turns 3 LEDs on then continuously beeps & flashes all LEDs at the 3 minute mark until the button is pressed.

Meanwhile, during the countdown mode if the button is pressed it will restart the countdown from the beginning. During the continuously flashing/beeping behaviour the button will put the SB-FireFly to sleep, and if pressed again it'll restart the countdown.

**Application:** It can be modified to be a timer of any sort, reminding you at certain intervals to take action such as pulling PCBs out of the oven eggs out of the pot.

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## SB-FireFly Twinkle Grenade

The inspiration for this hack comes from either the desire for mischief or the need for chip tunes. One of the two. Okay, maybe both.

**Additional Hardware required:** Needs a [Piezo Buzzer](#) soldered to the expansion port from S (PB3) to G (GND)

**Code:** [Download here](#)

**What it does:** Continuously plays Twinkle Twinkle Little Star and flashes all the LEDs in time with the notes until the button gets pressed. Upon button press, the SB-FireFly goes to sleep (because, unfortunately, no amount of Twinkle Twinkle Little Star makes electronics fall asleep). Push the button again and the tune will start back up where it left off.

Annoying your friends, family, and co-workers. Throw it in a colleague's office and run away as they frantically search the floor trying to turn it off (we swear we haven't done this at all...). Or you could be sneaky and hide it in a vent or inside a drop ceiling. Magnets stick quite well to the back of the SB-FireFly, so it can then be temporarily attached to a metal surface quite easily.

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With the sheer plethora of possibilities for the SB-FireFly (or 'hacklications', as Jeremie likes to call them), there'll probably be another one or two similar posts on the horizon for how to tweak this mini blinky platform extraordinaire, so stay tuned!

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