



Drum Machine Hacks and Mods

02

3x Gate Outputs

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Since V1.2.4 you have the option to use the 3x free Arduino pins as 3x Gate Outputs. This would be for a regular Arduino 2009/Uno, or you could have more outputs by using an Arduino Mega. (soon we will release another software hack for that situation)

To enable this option you will need to edit the Config.h file and enable the following definition (replace 0 with 1 to enable) `GATE_OUTS`

When enabled this adds extra code for a total of 3 Gate Outputs on pins A0, D2 and D3. (check the Board Details PDF file for headers information - should be SV2 and SV3)

Those gate outputs are fixed for Tracks 1, 2 and 3. (MIDI is disabled on those tracks when `GATE_OUTS` is enabled)

You can set the time of each gate by tweaking the following variable: `GATE_OUTS_TIME` - this is set in ms, by default is 15 ms.

You can also enable `GATE_OUTS_VEL_D3` to drive Velocity (PWM) on Track 3. (D3 Pin) This will drive the gate from 0V to 5V, depending on the selected velocity for the current playing step.

We provided a simple YouTube video to show how you could drive LEDs with this setup. The system is very simple, no schemes are involved. Just plug Ground to Ground, and each pin output will be the voltage depending on the options selected. Tracks 1 and 2 are always fixed to 5V, and Track 3 can use the `GATE_OUTS_VEL_D3` definition for PWM Velocity. (0V to 5V, depending on the Step Velocity)

If you wish to tweak the code, check the W_Hacks Tab and the `Gate_Outs_Midi()` function. That's the one called when a new note is played and `GATE_OUTS` is enabled.