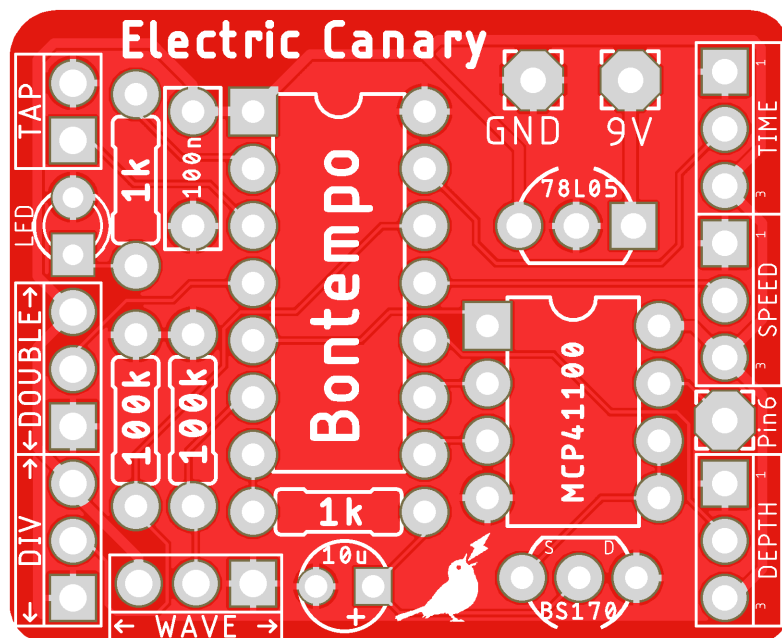


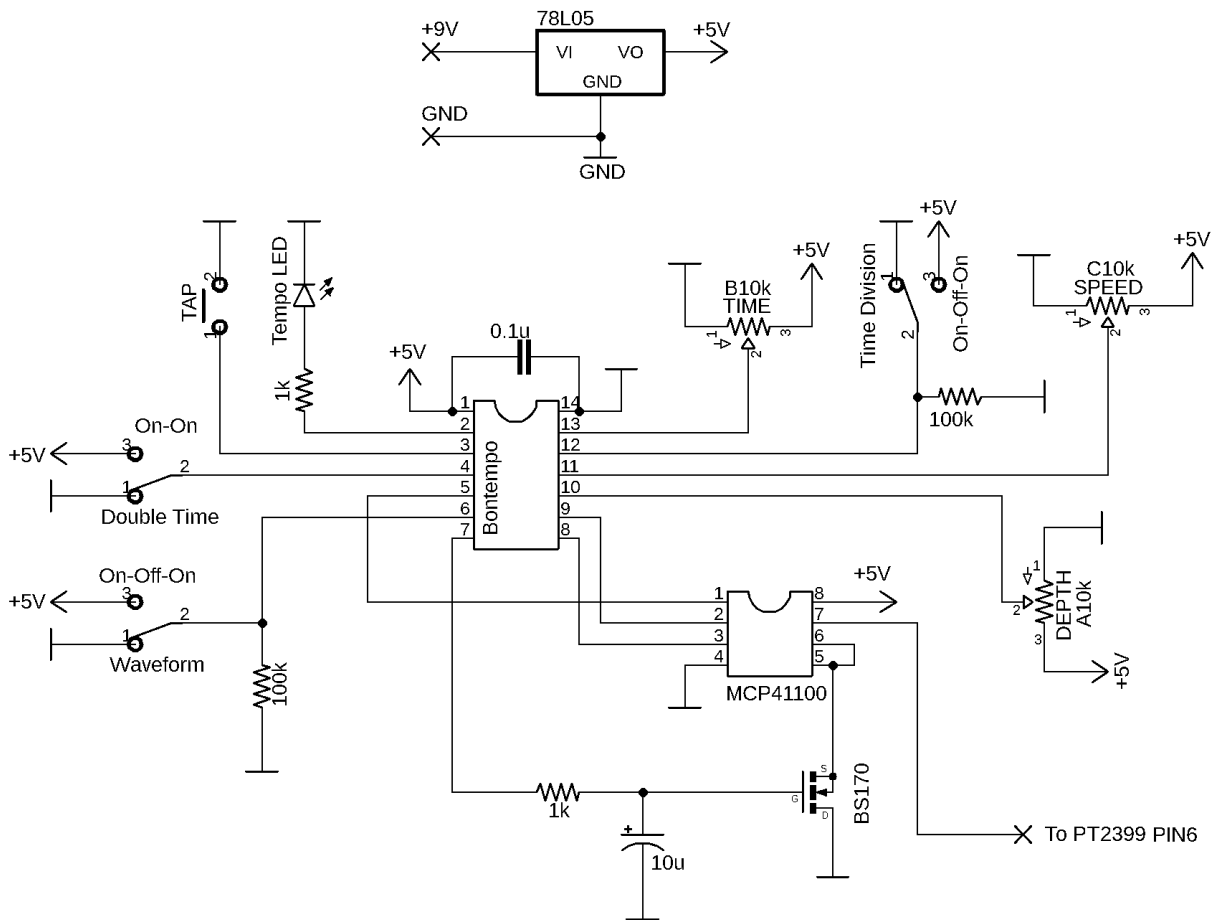
Bontempo - Build Documentation



Bontempo is a Tap Tempo & Modulation solution for PT2399 delay. You do need a PT2399 delay circuit to use with the Bontempo PCB. This is a build guide for the Bontempo PCB. For any information about operating the Bontempo please refer to the [datasheet](#).



1 Schematic

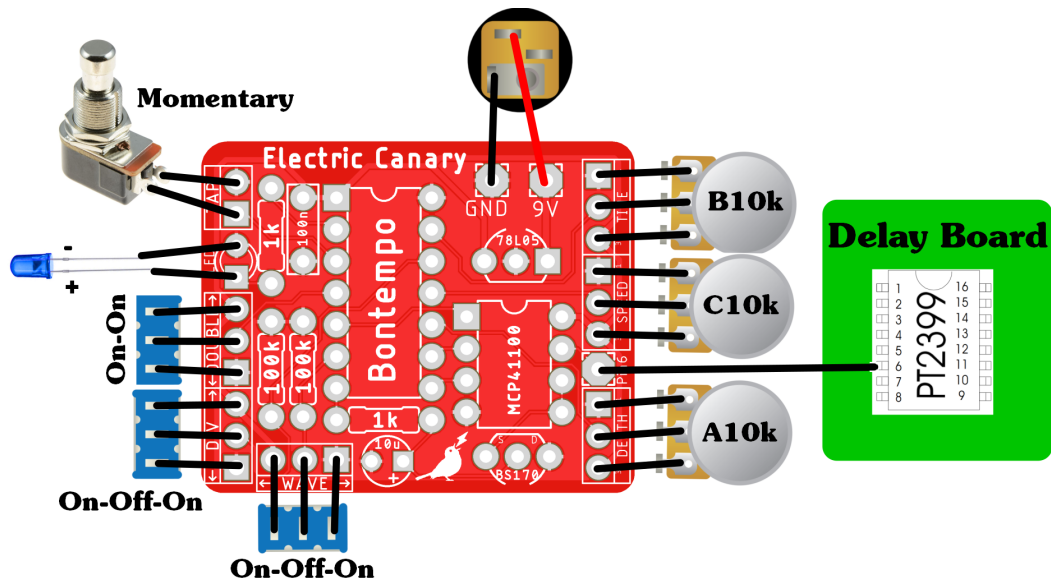


2 Bill of Materials

Name	Value
R1	1kΩ (more for dimmer LED)
R2	1kΩ
R3	100kΩ
R4	100kΩ
C1	100nF
C2	10μF
D1	Tempo LED
Q1	BS170

Name	Value
IC1	Bontempo
IC2	MCP41100
Time	B10k
Speed	C10k
Depth	A10k
Tap	Momentary SPST
Time Division	SPDT On-Off-On
Waveform	SPDT On-Off-On
Double Time	SPST

3 Wiring Diagram



4 Build Notes

- Don't forget to calibrate the Top Tempo once you're finished ! ([Datasheet](#) Section 9)
- Make sure to omit the Delay Time Pot and any resistors connected to the PT2399 Pin6 in the delay circuit.
- Make sure the connection between the Bontempo Board and the Delay Board is as short and secured as possible.
- If you don't wish to use the Double Time switch dynamically just omit the switch.
- Theoretically any value between $5k\Omega$ and $140k\Omega$ could work for R3 and R4.
- Similarly, higher values for the pots could be used. Lower values are not recommended.
- If the LED is too bright you can augment R1 value. $4.7k\Omega$ can be nicer for super-bright LEDs.
- Square pads represent pin 1 of pots, + for LED, + for polarized capacitors and pin 1 for ICs.
- Mind the way you orient switches.