Theme: 🌙   🌐 Language: EN

Luis Llamas
Engineering, computing, design

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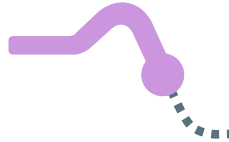
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🖼 Mon, Apr 7, 2014 | ⏱ ~ 1 minutes   𝕏   in   f   🟢   ✈

Low Pass Filter Calculator for PWM

With this calculator we can determine the parameters of a PWM filter, as well as calculate and visualize its time response.

The connection scheme is as follows
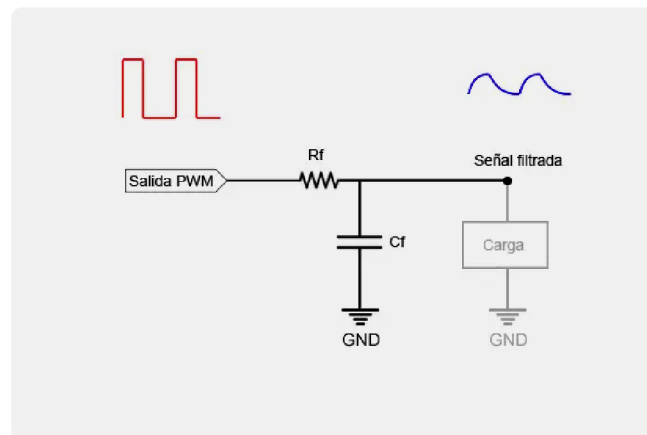
For more information, check the **analog output using PWM and low pass filter** entry

Signal values

Voltage	3.5	Volts
PWM frequency	1000	Hz
PWM period	0.001	seconds
Duty Cycle	75	%

Filter values

Resistance	100	Ohms
Capacitance	0.000047	Farads
RC time constant (tau)	0.0047	seconds

Results

Cut-off frequency	33.8627	Hz
Average voltage	2.63	Volts
Ripple	0.1395	Volts
Response time to 90 %	0.010822	seconds
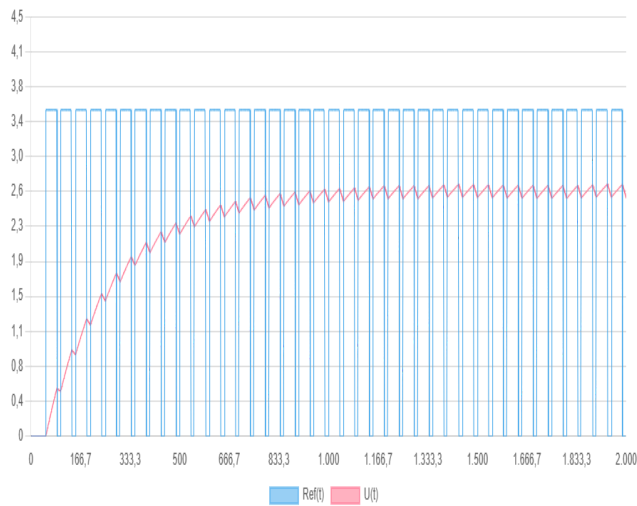
Topics: (Electronics) (Calculator)

You may also be interested in:

BJT Transistor Calculator as a Switch

Voltage Divider Calculator

Current Divider Calculator

Standardized Resistor Calculator

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