

Sound

Pulse-Width Modulation (PWM)

50% duty cycle



75% duty cycle



25% duty cycle



`pwm_clock, pwm_range, pwm_width`

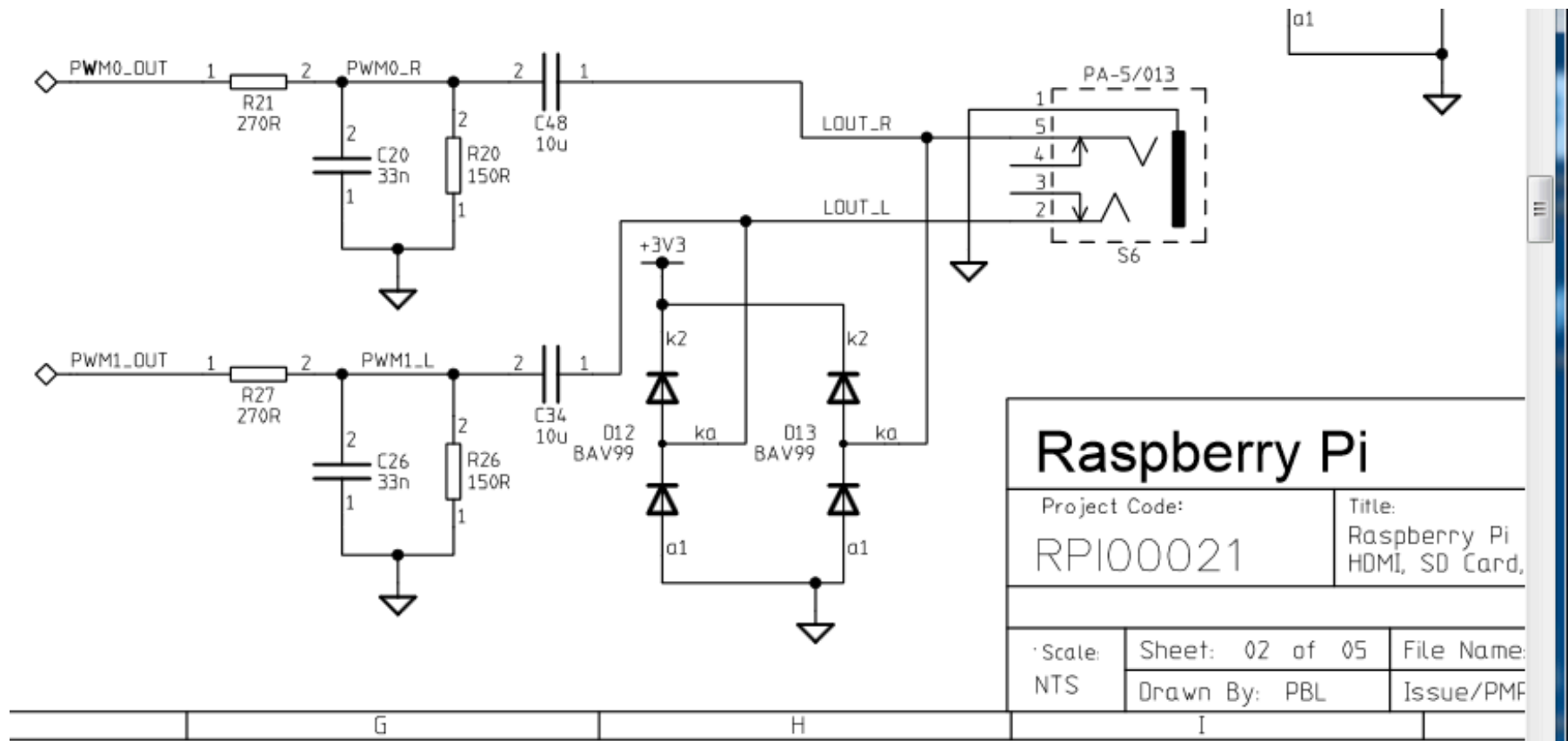
`pwm.c`

	PWM0	PWM1
GPIO 12	Alt Fun 0	-
GPIO 13	-	Alt Fun 0
GPIO 18	Alt Fun 5	-
GPIO 19	-	Alt Fun 5
GPIO 40	Alt Fun 0	-
GPIO 41	-	Alt Fun 0
GPIO 45	-	Alt Fun 0
GPIO 52	Alt Fun 1	-
GPIO 53	-	Alt Fun 1

PWM0 is output on GPIO_PIN18 ALT_FUN5

pwm.c
tone.c
melody.c

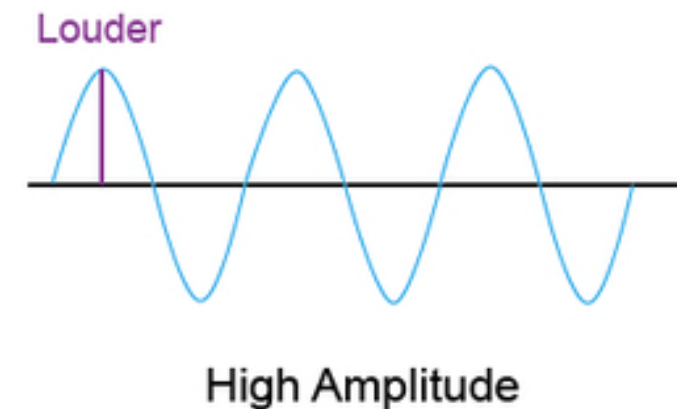
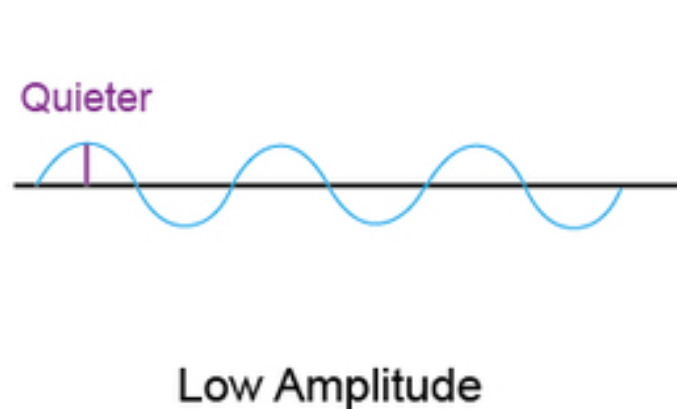
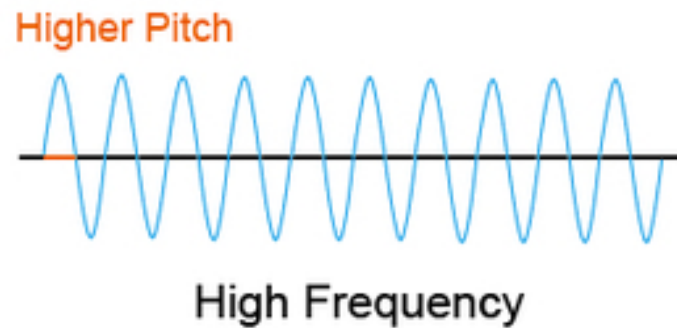
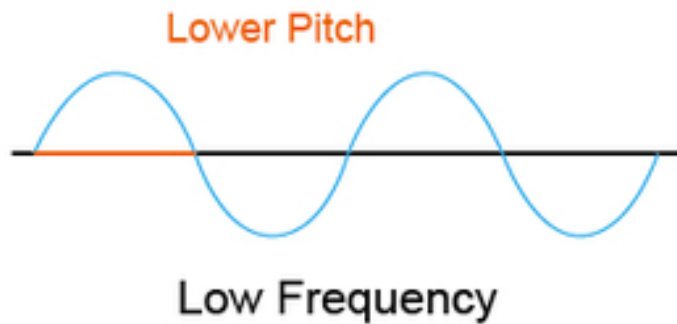
Raspberry Pi Stereo Jack



	PWM0	PWM1
GPIO 12	Alt Fun 0	-
GPIO 13	-	Alt Fun 0
GPIO 18	Alt Fun 5	-
GPIO 19	-	Alt Fun 5
GPIO 40	Alt Fun 0	-
GPIO 41	-	Alt Fun 0
GPIO 45	-	Alt Fun 0
GPIO 52	Alt Fun 1	-
GPIO 53	-	Alt Fun 1

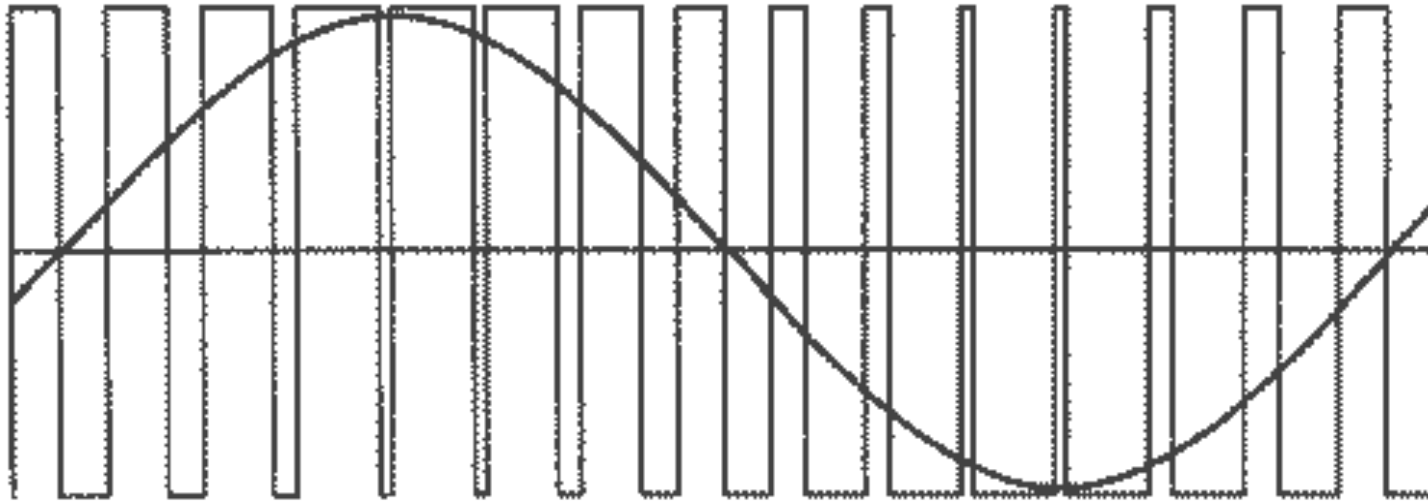
**Stereo Jack connected to
GPIO_PIN40 and GPIO_PIN45**

Sound Waves



Continuous Values

Can simulate continuous values with fast enough PWM clocking



Like you did to control the LED brightness

audio.c