



Improved Software PWM

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INTRODUCTION

The canonical software PWM uses a DECFSZ timing loop to time the ON period and another DECFSZ loop to time the OFF period. It is necessary to compute 256-N for the second loop. By using INCFSZ for the second, OFF-time loop, it is not necessary to compute 256-N, saving cycles.

Code:

 $\begin{array}{ccc} & \texttt{MOVLW} & \texttt{WIDTH} \\ & \texttt{BSF} & \texttt{OUTPUT} \\ & \texttt{MOVWF} & \texttt{COUNT} \\ \\ \texttt{ONTIME:} & \texttt{DECFSZ} & \texttt{ONTIME} \\ & \texttt{BCF} & \texttt{OUTPUT} \\ & \texttt{MOVWF} & \texttt{COUNT} \\ \end{array}$

OFFTIME: INCFSZ OFFTIME

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