

Case Study: Small DC Motor Used in Orthodontic Vibrator

This customer manufactures an oral activator that generates pulses for tooth remodeling in patients wearing orthodontic braces. New to the dental industry, this patient-use orthodontic tool shortens the length of time braces are on the teeth.

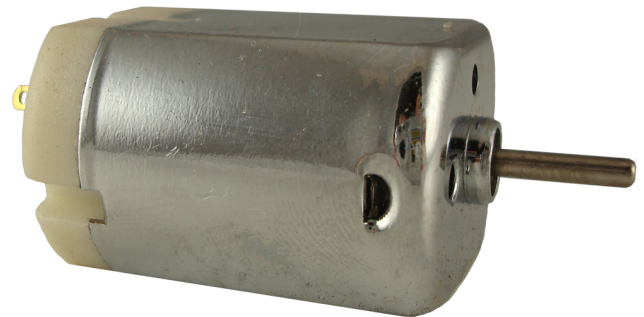
Small Electric Motor Requirements

- Consistent speed
- Controlled power
- Able to create a vibrating movement

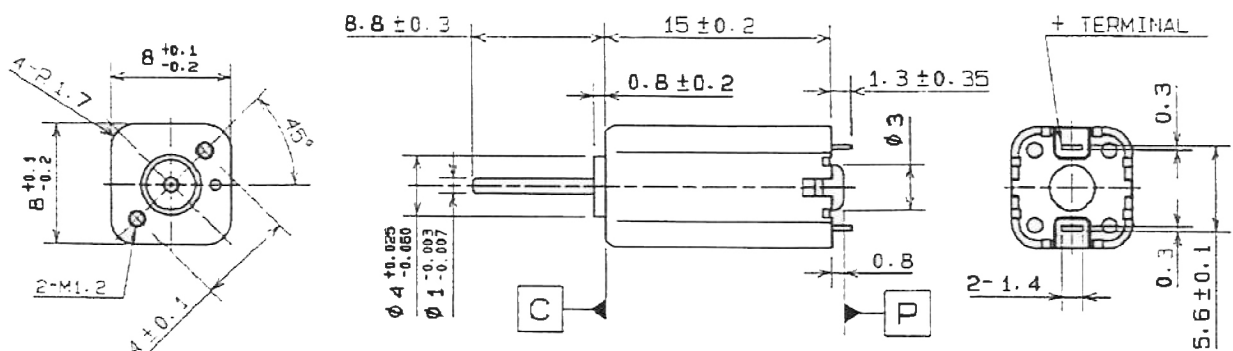
Motor Selection

Small DC Motor

- Rated voltage 4.3V
- Torque .985 mN
- Weight 3.9g



A weight is placed on the shaft to make it unbalanced. When the small DC electric motor spins, the unbalanced weight shifts causing vibration. This vibration helps move the teeth with daily use, thus reducing the total amount of time for dental braces.



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