

Getting the most out of your motors, the LEGO Evolution:

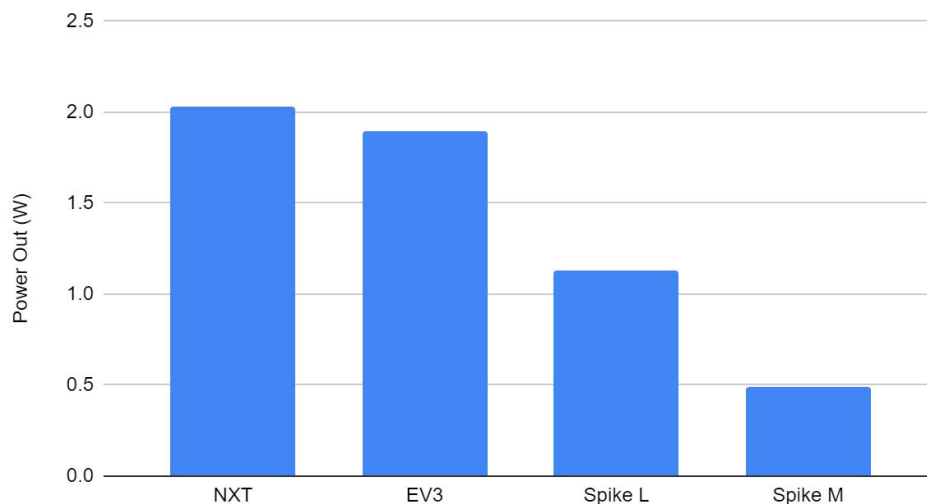
You know you're getting old when you've lived through 4 generations of LEGO Robotics kits... This year LEGO announced the LEGO Spike Prime Kit and the LEGO MindStorms Robot Inventor kit. Both use the same controller and motors. These will be the replacement for the EV3 kit currently used by so many people.

Quick reminder that power is measured in watts, so while you may not understand what that means right now, it is a measurement of how much work the motor can do.

I've seen the specs for the motors and the mechanical output of the Spike Prime motors (in watts) is significantly less than for either the EV3 or NXT motors. Great writeup and comparison here: <https://www.philohome.com/motors/motorcomp.htm>

At maximum voltage (set by possible battery options, 9V for EV3 & NXT, 7.2V for Spike):

Power Out (W) for 3 Generations of LEGO Robot Motors



The Spike Prime is limited to the included Lithium Ion rechargeable battery that works at 7.2 volts. Both the EV3 and the NXT controllers can handle 9+ voltage on the batteries, depending on what you put in. If you use the lower voltage EV3 and NXT rechargeable battery packs, then your wattage will be less.

For those of you who do the Robot Track Meets, you can see this will lead to some very significant differences in performance. But there are some real plusses with the Spike Prime as well, just not power.

