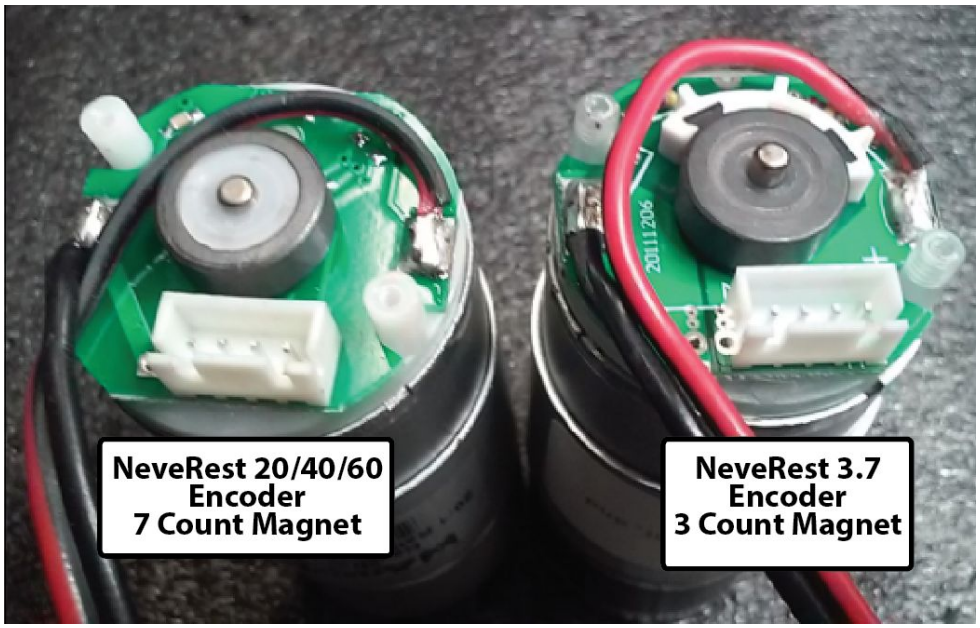
3.7 NeveRest Encoder Update

The Issue:
Teams have been reporting that the encoders on the NeveRest 3.7 are not reporting the expected pulse output.

What's Different with NeveRest 3.7:
The encoder that comes with the NeveRest 3.7 Gearmotor has a different architecture and with it a different magnet. The magnet is energized with 3 poles. This is different than the magnets on the motors that ship with the NeveRest 20, NeveRest 40, and NeveRest 60 gearboxes.



The Solution:
These gearmotors operate the same as the other NeveRest Gearmotors, but require some adjustments when reading the encoder values.

Poles Per Magnet:
3 (compared to 7 on the other motors)

Pulses Per Revolution:
3 poles * 3.7 ratio = 11.1
compared to 25.75 on the other motors

Ticks Per Revolution:
PPR * 4 Edges of a pulse = 44.4
Compared to 103 on the other motors