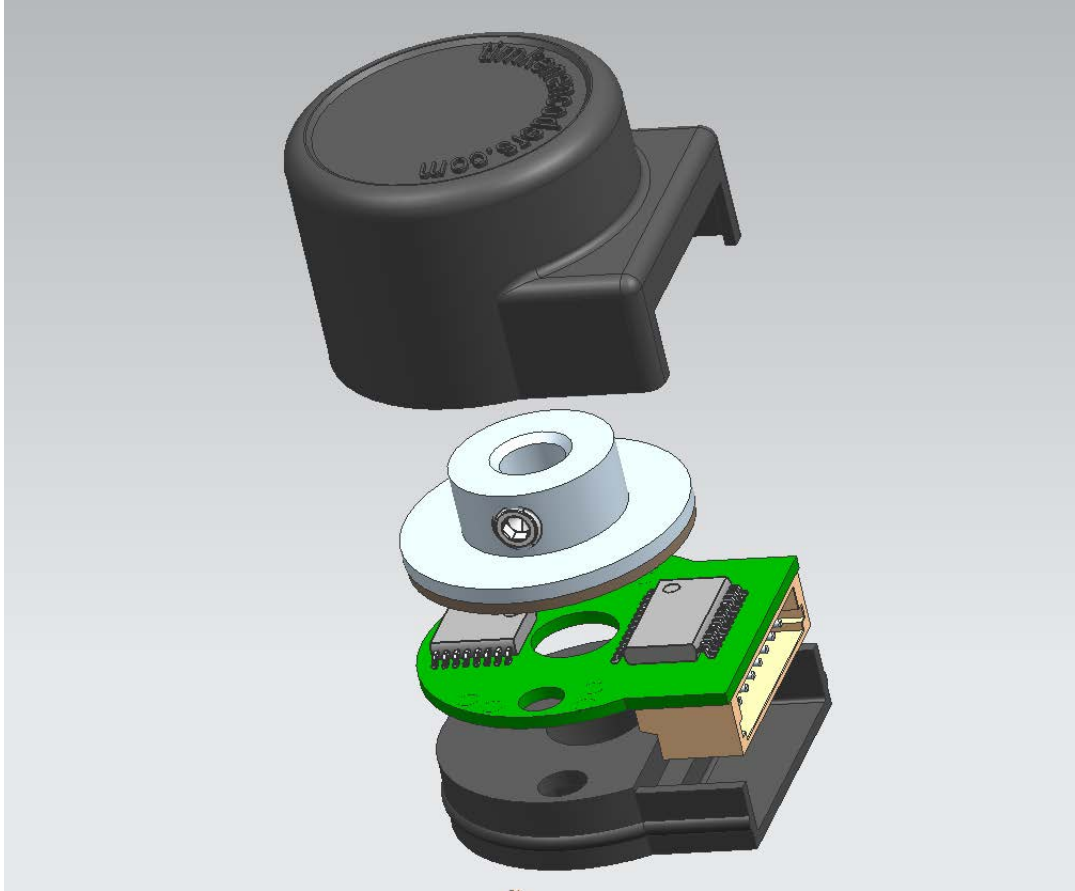


M9 INSTALLATION INSTRUCTIONS



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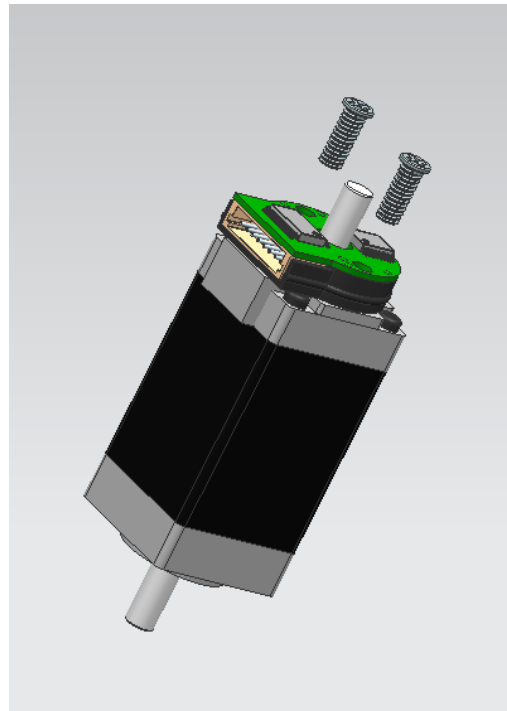
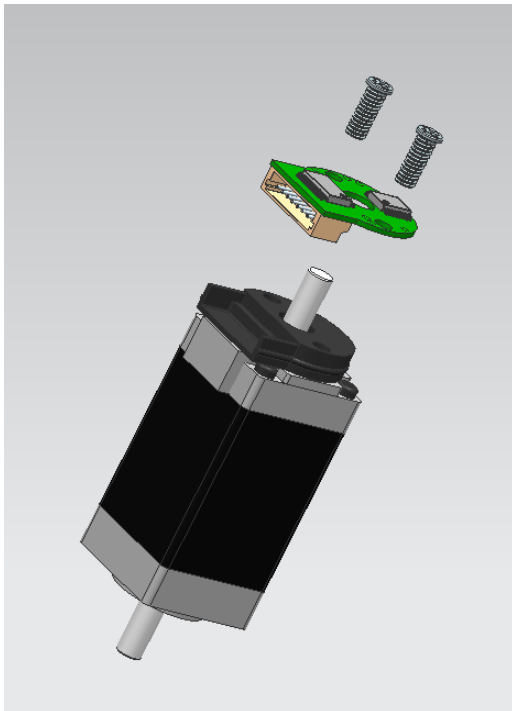
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M9 TO MOTOR INSTALLATION

Attention – Electrostatic Sensitive Device

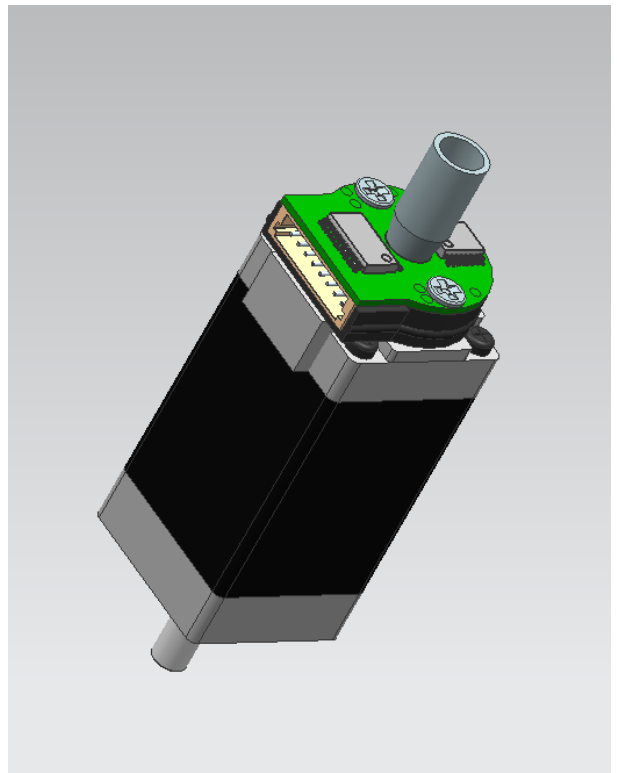
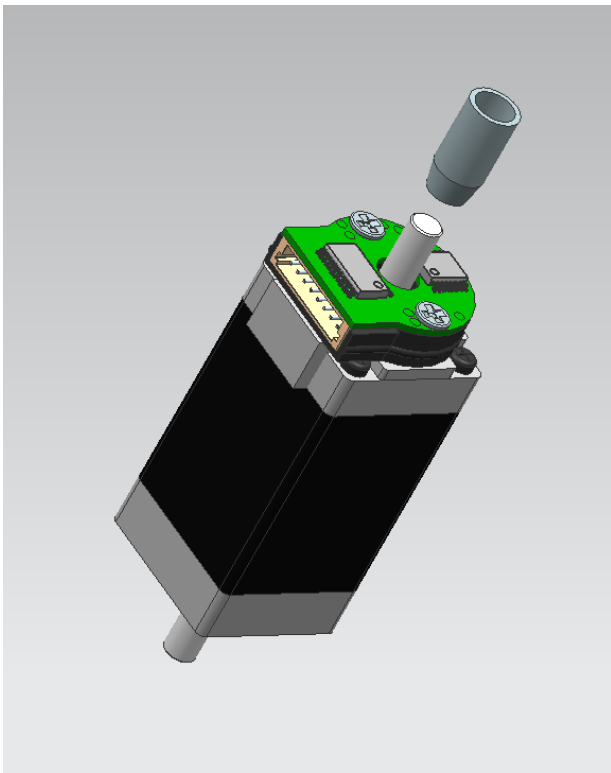
Observe precautions during handling and installation.

- Make sure the encoder mounting surface is flat and clean.
- Place the supplied spacer on the motor.
- Set the M9 sensor board on the spacer and secure to the motor housing using two M2.5 X 0.45 X 8 . Apply a very small amount of Loctite 222 or 242 just to the threaded end of the screws and loosely install. (Loctite datasheet suggests potential chemical compatibility issues with thermoplastics). The recommended height for the screw head is 1mm. Do not tighten the screws completely at this time.



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- Slide the alignment tool down the motor shaft with the cone end towards the M9.
- Slightly rotate the M9 encoder as needed and center the encoder by lightly pushing the alignment tool into the center hole of the encoder.
- Tighten the screws to secure the encoder to the motor housing.
- Maintain a constant pressure on the alignment tool while tightening the screws.
- The recommended torque for the mounting screws is 0.28 N-m (40 oz-in) maximum.
- Remove the alignment tool.



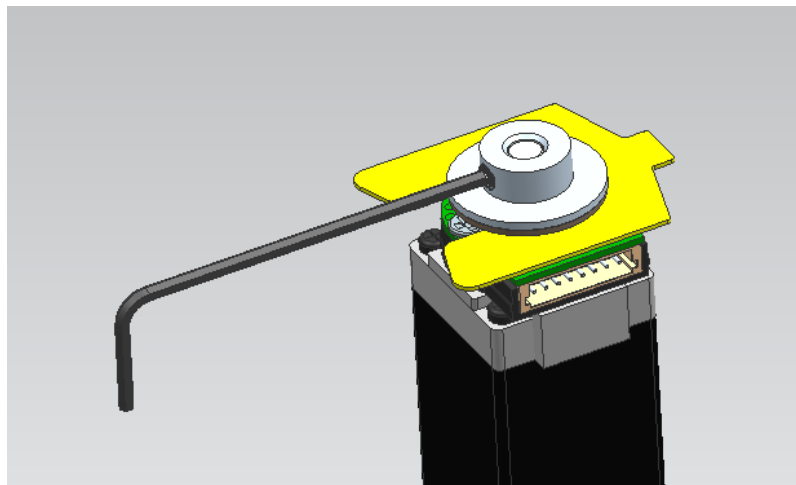
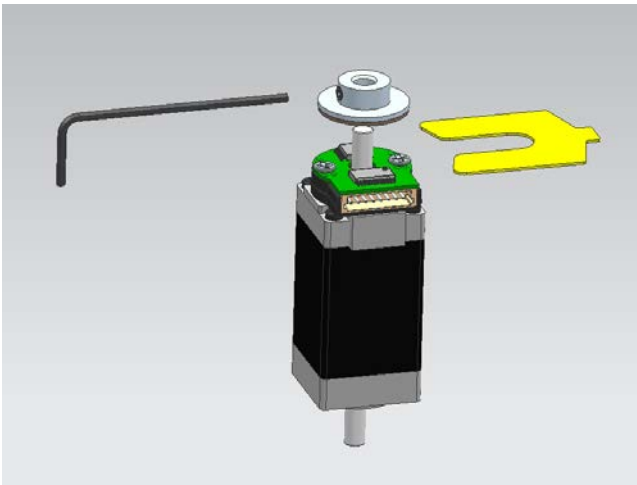
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- Slide the M9 magnetic target down the shaft.
- Position the air gap shim between the top of the MPS160 ASIC and the magnet material on the magnetic target.
- Using the supplied 1.5mm hex wrench, tighten the set screw on the magnetic target to a maximum torque of 0.71 N-m (100 oz-in).
- Remove the air gap shim.

Caution

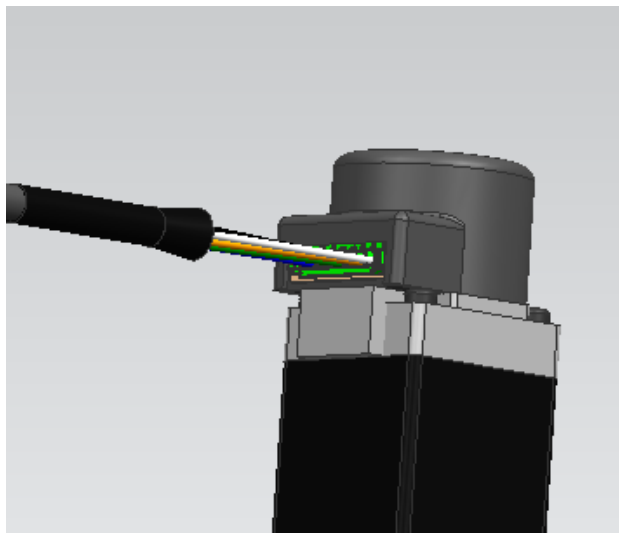
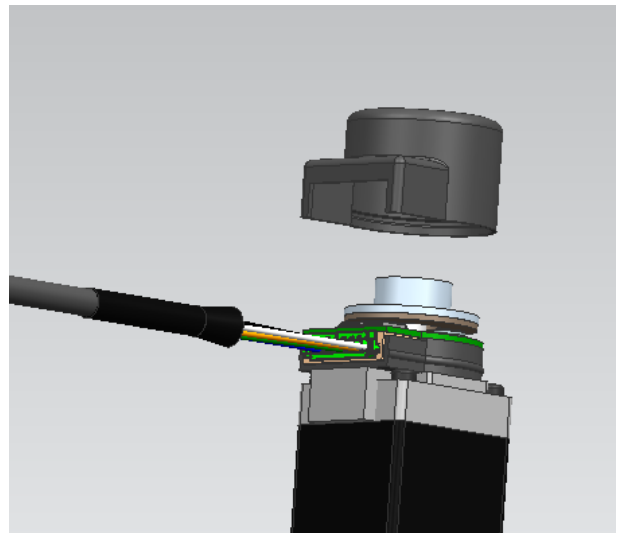
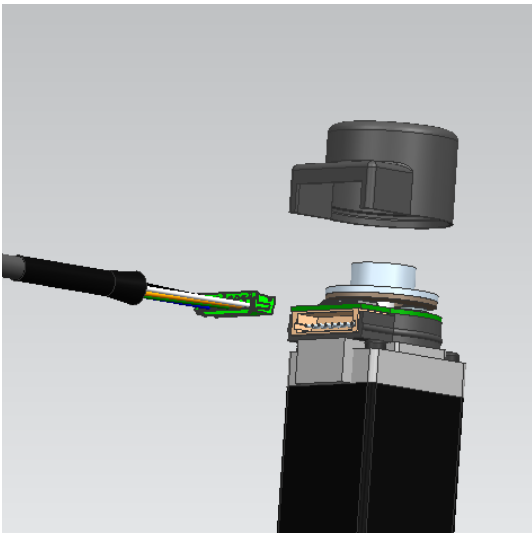
Failure to observe the following caution could create a risk of serious injury.

Insufficient tightening of the set screws may result in encoder wheel coming off the shaft.



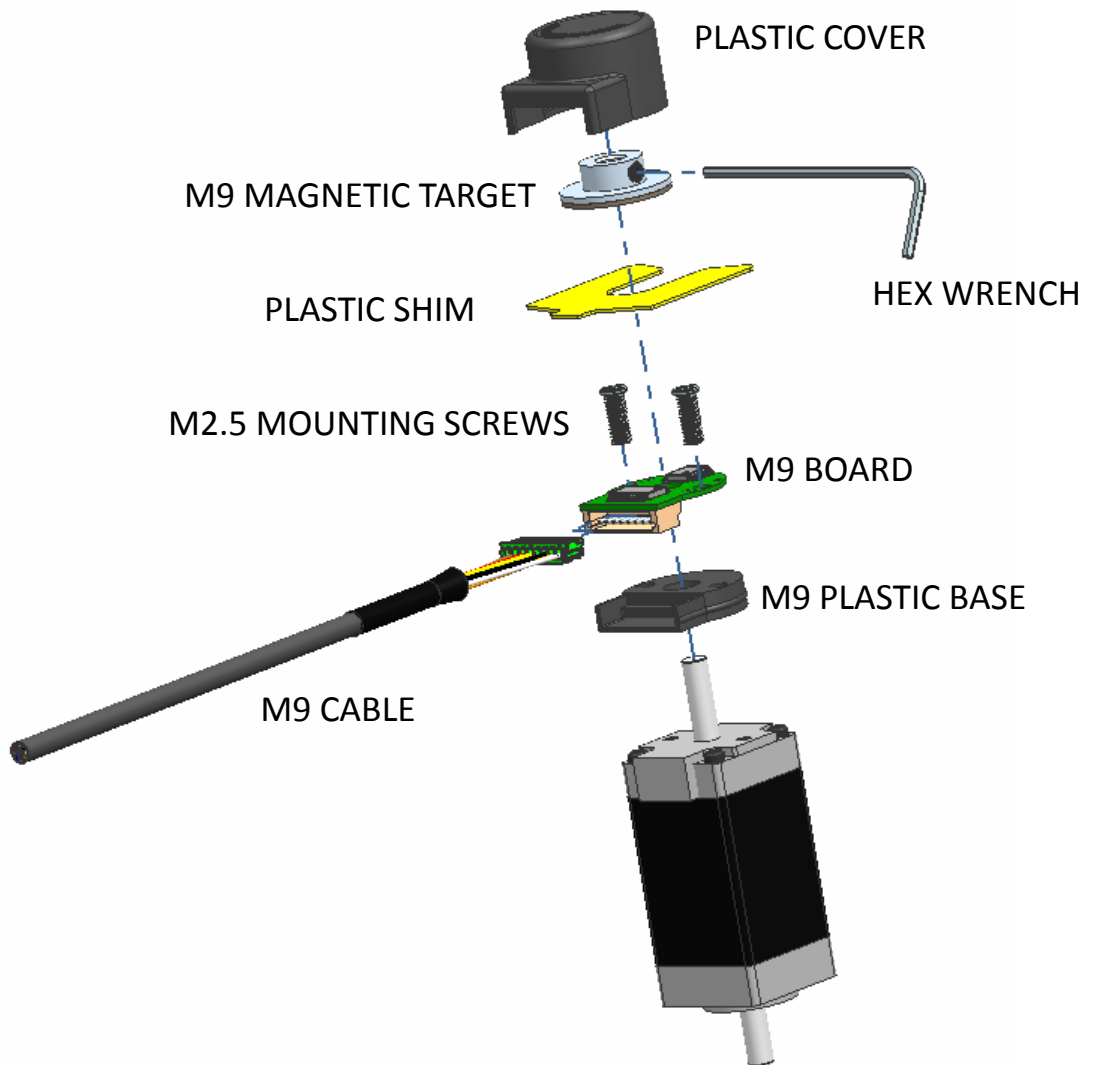
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- Connect the M9 cable before the plastic cover is installed.
- Place the plastic cover over the M9 and lightly press down towards the motor until it snaps on the M9 plastic base. Make sure to properly align the opening on the cover with the M9 cable connector.



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M9 ENCODER AND ACCESSORIES



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M9 CABLE/PIN FUNCTIONS

| Pin Number | Function | Wire Color |
|------------|----------|--------------|
| Pin 1 | +5V | RED |
| Pin 2 | GROUND | BLACK |
| Pin 3 | A+ | YELLOW |
| Pin 4 | A- | YELLOW/WHITE |
| Pin 5 | B+ | BLUE |
| Pin 6 | B- | BLUE/WHITE |
| Pin 7 | Index+ | ORANGE |
| Pin 8 | Index- | ORANGE/WHITE |

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