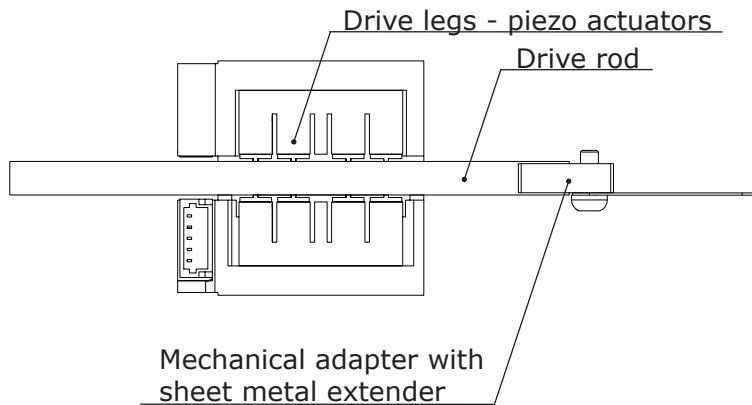
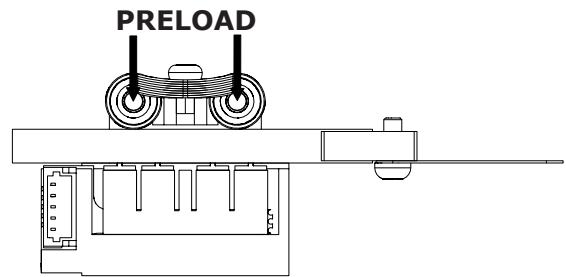


The Piezo LEGS is a high precision motor. A few simple instructions must be followed in order to get the best performance and lifetime. If the motor is installed poorly both performance as well as life time is severely affected.

Piezo LEGS® Linear Twin 20N



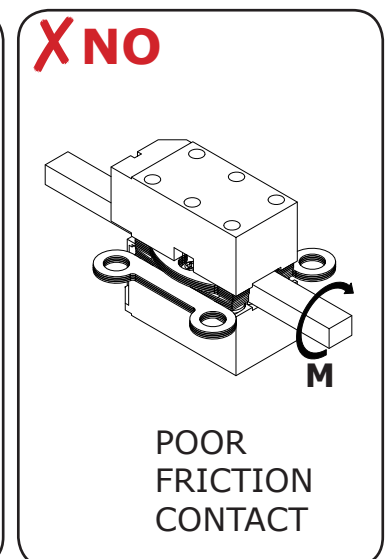
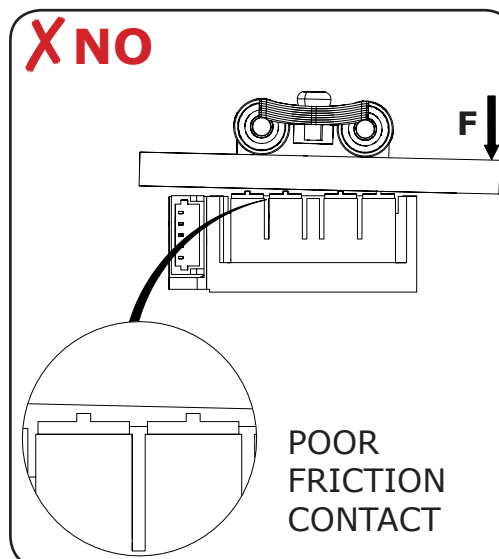
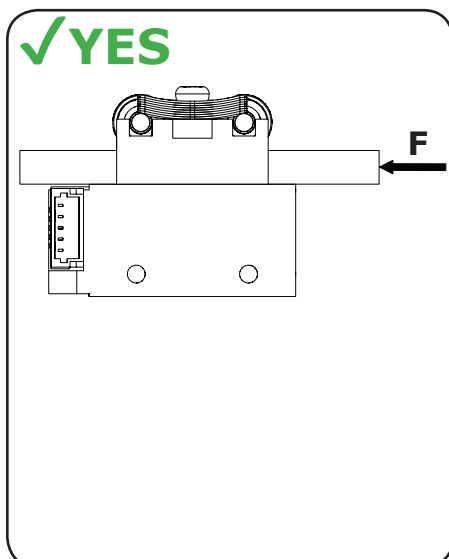
Piezo LEGS® Linear 6N



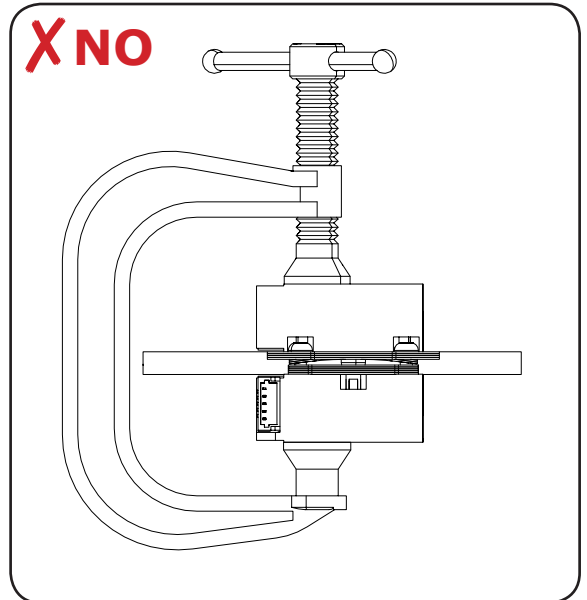
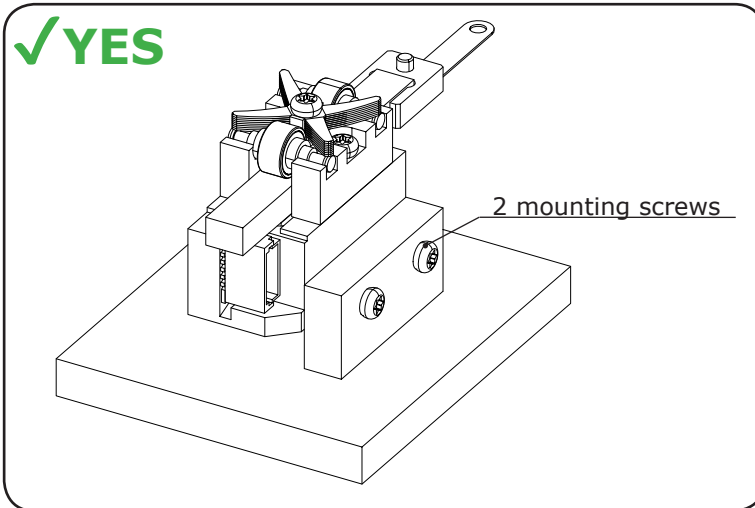
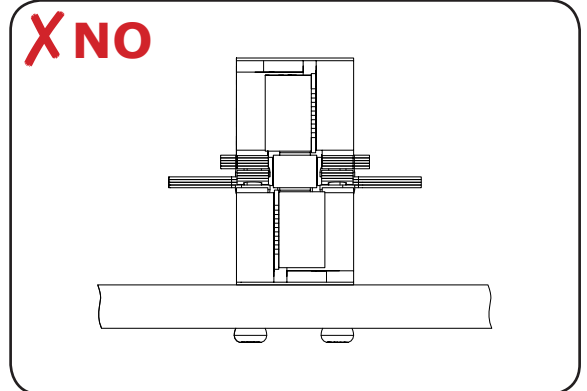
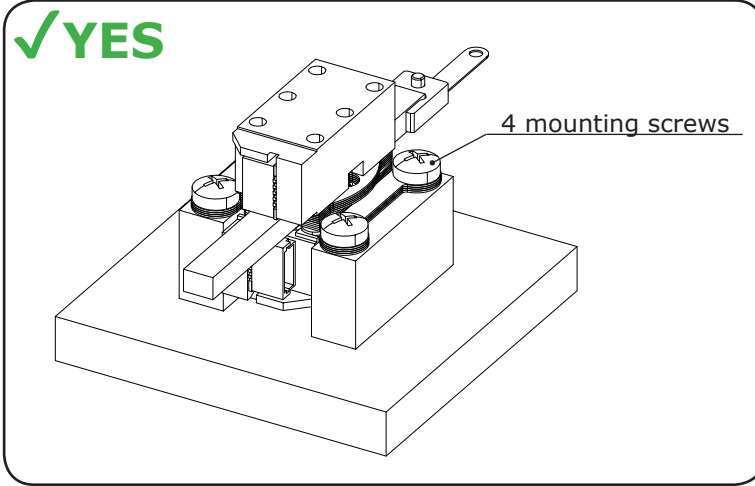
The Piezo LEGS is a direct drive motor. Proper friction coupling between drive legs and drive rod is essential for optimum performance. When properly installed the motor can position down to the nanometer range without backlash.

Mechanical Notes

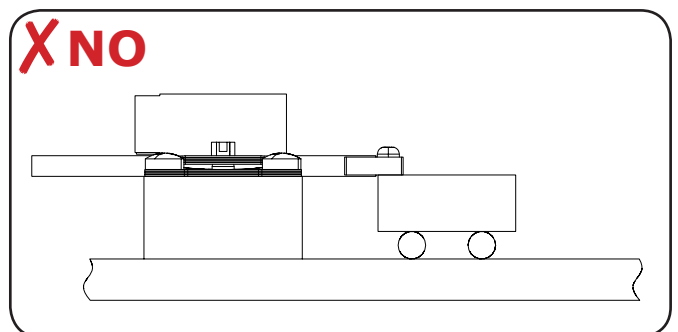
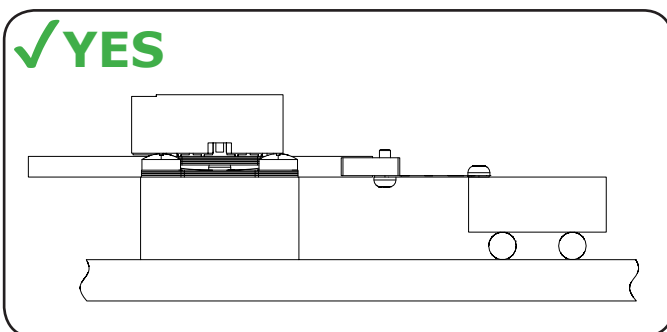
- The motor drive rod must not be subjected to non-axial force – even small loads or torques on the end of the drive rod may cause loss of proper friction contact between drive legs and drive rod. The motor function can be impaired and the motor can be damaged.



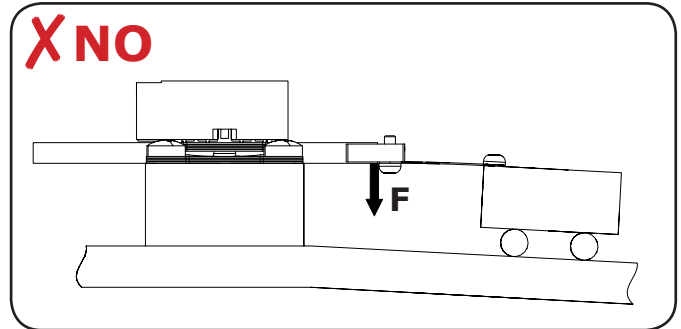
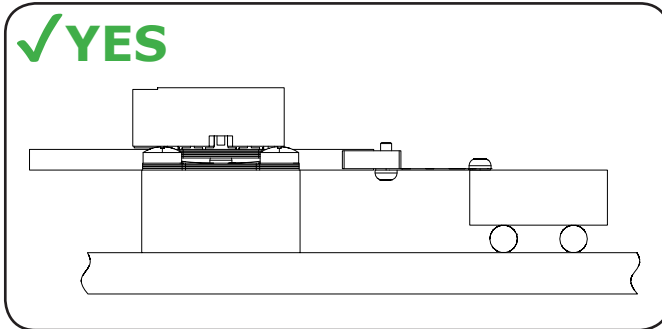
- Always mount using the intended mounting holes. Do not use the non-threaded holes in motor housing for fastening the motor. Do not clamp the motor.



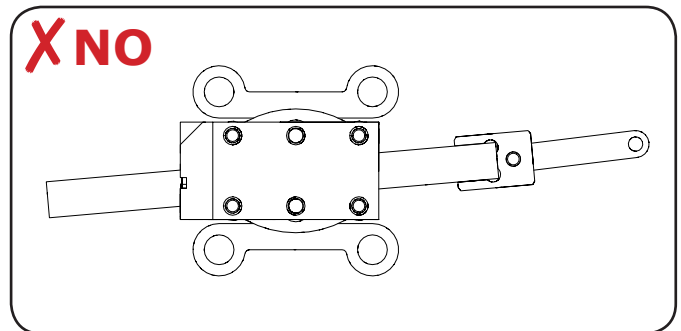
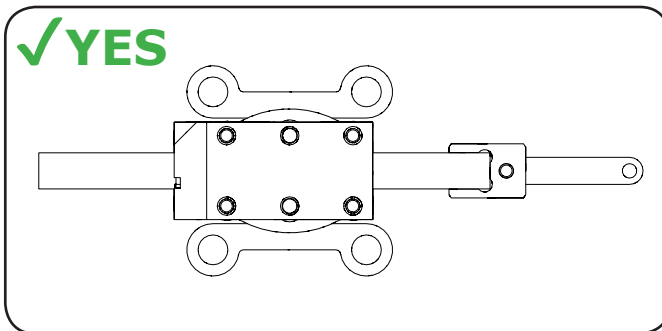
- Always mount using a mechanical adapter with flexible sheet metal extender so that transverse loads and torques on the drive rod are minimized. Never directly connect the drive rod and moving part in your application (for example when connecting the motor to a linear bearing). Mounting directly will introduce loads large enough for the drive rod to lose proper friction contact.



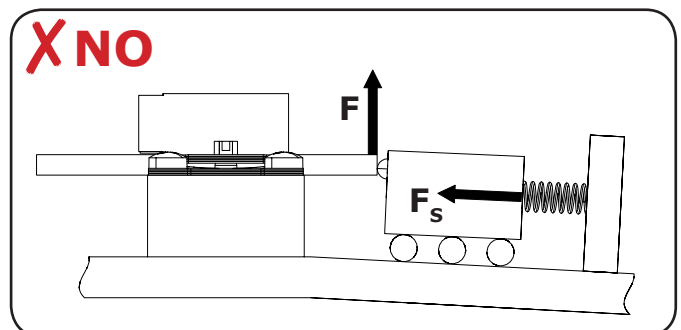
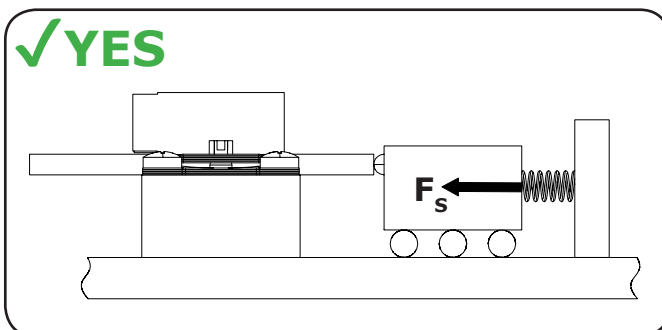
- Always align the drive rod so that there are no loads transverse the drive rod axis of motion. Even small angular misalignment may impair motor function.



- Misalignments in the drive plane are less critical but should be avoided. If the drive rod is aligned poorly there is risk for contact between drive rod and motor housing. Contact may impair function.

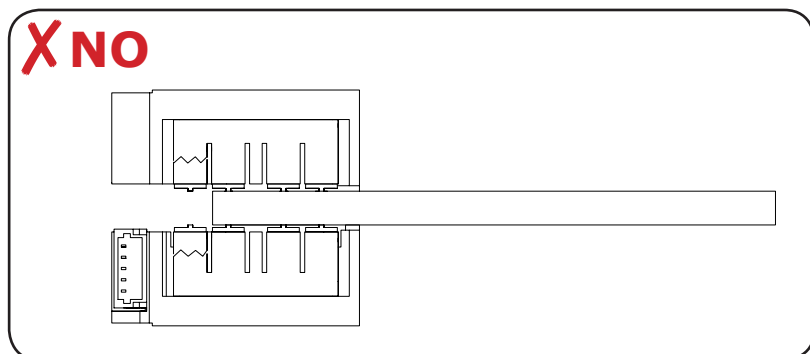


- If a mechanical adapter with metal sheet extender cannot be used because of space limitations, we suggest the motor work against a spring loaded linear bearing. Small non axial loads can be reduced by pressing against a spherical surface. Note that angular misalignments may generate non-axial loads resulting in impaired function.



- If acceptable, insert a thin piece of hard rubber between drive rod and stage block to remove vibrations.

- The drive rod must not be removed from the motor, and it must not be moved to a position where contact with any drive leg is lost. The drive legs can be severely damaged if they are not preloaded while motor is running. Repositioning a drive rod that has come out of place may crack the ceramic drive legs. Contact PiezoMotor for instructions on how to reposition the drive rod.



Electrical Notes

- The maximum voltage of +48 V relative to GND must never be exceeded. Overvoltage or reverse polarities can damage the motor.
- Be careful not to overheat motor! Continuous operation at higher drive frequencies may damage the motor. In non-continuous applications higher drive frequencies may be tolerated, but please consult PiezoMotor in these cases.
- Twin configured motors must be connected with two motor cables. The two sides of a twin configured motors are run in parallel. Use a *Twin Connect Board* for proper wiring.
- When using PiezoMotor drivers, be sure to check driver data sheet or manual for notes on maximum drive frequency for different capacitive loads.

**Visit our website for application examples,
CAD files, videos and more...**

www.piezomotor.com



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