KAIROS Hybrid Motor

Build Guide & Parts List

An open-source motor design for sustainable energy generation

1. Cut or print the baseplate and securely mount it to your working surface.

2. Install the central bearing to hold the output shaft and rotor disk.

3. Mount the rotor disk on the shaft, ensuring smooth rotation with magnets evenly spaced.

4. Attach the stator magnets on a fixed arc, offset to maximize repulsion with rotor magnets.

5. Construct the pendulum arm and weight assembly, ensuring it swings freely and aligns with a reset cam.

6. Connect the escapement lever to interact with the rotor at specific intervals to maintain momentum.

7. Add the flywheel to the shaft for kinetic energy smoothing and inertia.

8. Use magnetic shielding to dampen back-pull if needed.

9. Test manually and adjust magnet angles or lever tension as required.

10. Optionally, couple the output shaft to a generator, water pump, or mechanical device.

Component	Specification
Rotor Disk	Ø100mm, plastic or composite
Rotor Magnets	Neodymium, Ø6mm x 3mm, N52, qty: 6
Stator Magnets	Ferrite or Neodymium, 10x10x5mm, qty: 6
Baseplate	Wood, acrylic, or MDF, 300x300mm
Flywheel Ring	Ø180mm flywheel, metal or dense plastic
Pendulum Arm	Steel or hardwood, 8mm dia x 100mm
Pendulum Weight	Lead or metal sphere, Ø15mm
Escapement Lever	Mechanical linkage, hinged or spring-loaded
Output Shaft	Stainless steel or alloy, 8mm dia
Bearings	608ZZ or similar
Magnetic Shielding (optional)	Mu-metal, ferrite sheets