Homemade flywheel storage

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Since no companies appear to make them commercially, would it be feasible to build one at home using weights or a water-based rotor, a reversible motor/generator and some electrical conversion circuitry?

For reference, I use a lead-acid battery as laptop/modem/general power backup in my home office. It's 12V 36Ah, weighs 12kg and can deliver just over 350Wh of energy via an inverter over an 8-hour period.

This project explores flywheel energy storage systems through the development ofa prototype aimed at minimizing friction. I designed a motor with no mechanicalbearings. The contact of the rotor with the outside world is limited to the verysharp tip of a metallic rod. The rest of the alignment is made with the help ofmagnets, therefore avoiding any physical contact.

A DIY demonstrator of flywheel energy storage, including detailed descriptions of mechanics, electronics and firmware. See https://github /a-sc/Flywheel for design files and firmware source.