Magnetic Stove

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We aim to make a heating cooker that consumes less electric and natural gas with a simple magnet system for using at home. The mainframe of our project is established on a tray by putting 16 round neodymium magnets that are 2 cm in diameter.(It was tried to use wood in this project in addition to it, polyemit can be used on compressed plastic and Teflon as well.) In order to create rebuff effect, one magnet is placed as the N pole is up while another magnet is placed as the S pole is up. Then, to spin the tray faster, we fasten the tray in an Electrical Motor. (Weathervane and solar power can be used in this project, but we used electrical motor instead as it was difficult to create portable) The reason here is to create Eddy current that is based on Faraday's Law on the copper skillet by the rebuff effect of the spinning magnets and also heat the diamagnetic copper skillet with Eddy current. As a result, after running contrivance, the copper skillet heats in short time for cooking. After testing It was observed that an egg is cooked in 60 seconds in a 1500 watt electrical heater we use at homes while it decreases to 48 seconds when we use our system that consumes 600 watt. So, the system saves 72 % energy. (a standard cooker consumes 1500 watt in an hour while magnetic cooker consumes 420 watt in 42 minutes by saving 30 % time for the same cooking) We can also increase the efficiency with this system that uses 200 watt. With other powerful transmissions it can be possible to have some systems that use less energy. What's more, when it is assumed that the power of the electrical heaters we use at homes is 5000 watt, our system is an energy saver.

Awards Won: