

## How to build a magnetic stirrer

### Materials needed:

- Old hard drive
- Old computer ventilator
- 12V DC power supply + compatible plug
- Old Tupperware box
- Various pieces of wood for the bottom

1. Take the hard drive and open it. There should be a really strong magnet, which you will need for our stirrer.
2. Take the computer ventilator and break of the wings because we don't need any wind within our stirrer.
3. With a piece of double sided tape or with a hot melt gun, fixate the magnet on the middle of the ventilator, but try first if it is in the middle, since when its out of the centre the whole stirrer will shake later on.
4. Cut of the ends of the cables of the ventilator and combine it with the potentiometer and the compatible 12V DC plug.



5. Turn on the power supply and test if it works.
6. If it works, braze the cable ends together, since this will fixate it for a longer time than just twisting their ends together.
7. Cut out a piece of wood (which fits exactly into the old Tupperware box)
8. Fixate the ventilator onto the wood via screws or hot melt gun but be careful that between the rotor and the top of the box is not to much space since this will decrease the efficiency of the stirrer.
9. Cut holes into the tupperbox for the power plug and the potentiometer and fixate them.
10. Put everything into the Box and put the box onto the piece of wood.
11. Fixate the box onto the bottom
12. Have fun with your DIY Stirrer :D