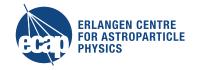
How to build a pulsar modell in 2 minutes



Dmitry Malyshev and Kay Graf June 2016





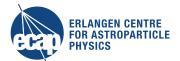
How to build a pulsar modell in 2 minutes



Bill of Materials

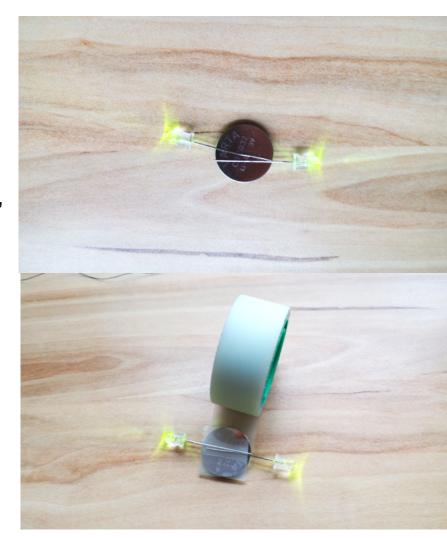
That's what you need:

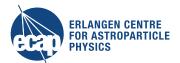
- adhesive tape~ 10cm
- LEDs 2x
 standard 5mm through hole LEDs with leads
 (green, red, orange or yellow will work blue not)
- battery 1x
 3.0 V Lithium, CR2025 or CR2032
- plasticine ~ 7-8g
 best Crayola Model Magic[®] but also Play-Doh[®] or substitute will do (though the pulsar will dissolve after a few hours)
- twine ~ 50cm
 any type is ok



Building Instructions 1

- take the battery, put the two LEDs over it so that they burn:
 - one lead above, one below the battery (the longer lead is the positive one, but just turn them around if they don't burn).
 - the LED heads shoud stick out ~
 1cm at both sides
- wrap adhesive tape around to hold battery and LEDs together

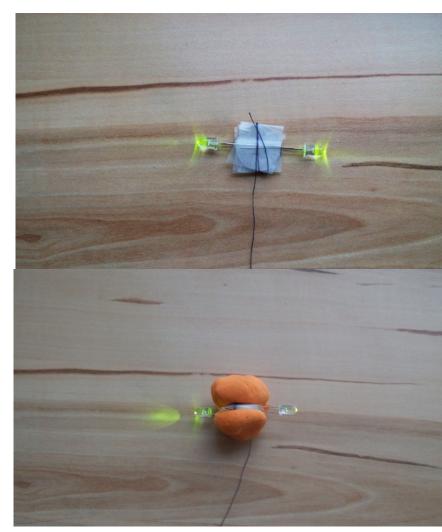


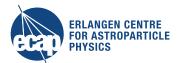


Building Instructions 2

- wrap around twine (2-3 times) ~
 perpendicular to the line of the leds
 - fix with adhesive tape

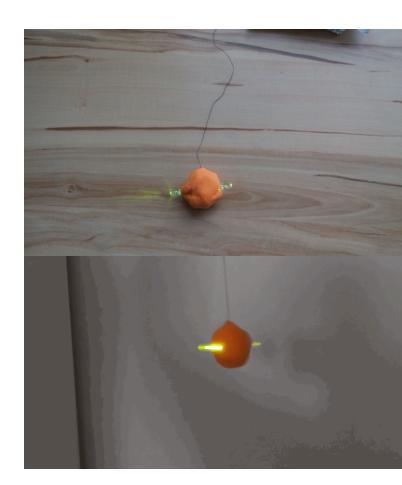
 put around the plasticine - best from two small balls. So only the LED heads stick out (and the twine

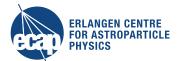




Building Instructions 3

- form a round ball from the plasticine
- ⇒ you got your pulsar!
- let it rotate on the twine, even if the pulsar is not well aligned it looks nice
- a surplus: fill a balloon with helium and hang the pulsar on it
- Sicherheitshinweise:
 - Bitte nicht direkt in die LEDs schauen!
 - Die verwendeten Lithiumbatterien bitte fachgerecht entsorgen!





Sicherheitshinweise

- Bitte nicht direkt in die LEDs schauen!
- Die verwendeten Lithiumbatterien bitte fachgerecht entsorgen!