

Application No. 741: Child-proofing the staircase

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Protective bars between high stair steps

Stairs as accident hazard

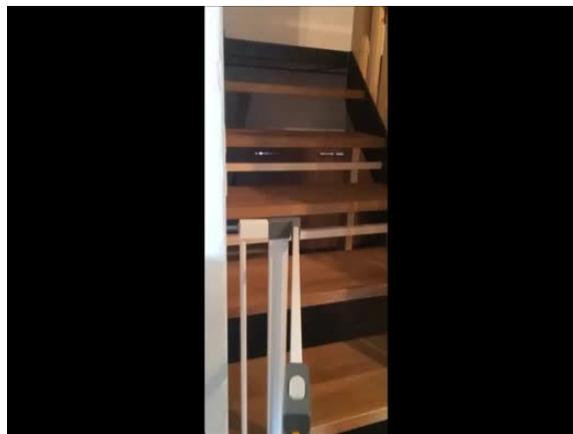
We have stairs with massive oak steps in our house. The gaps between the steps are so high that our little kids are inclined to crawl through them. As long as they are that little, we need protective bars between the steps. I didn't want to deform the stairs too much through drilling into the wood steps or steel sides. Then, I came up with the following solution:



In between each step we now have a wooden bar into which I screwed a GTN-32: Pot magnet with threaded stud \varnothing 32 mm (www.supermagnete.fr/eng/GTN-32) on the left and right. The bar is placed between the steel sides and when in position, the magnets can be unscrewed a little bit and adjusted to sit flush with the steel sides. This way the bars are mounted mechanically and magnetically. Each magnet has an adhesive force of 39 kg!



You can see in the video how well the bars are fastened - no child can move them.



Video

Precise implementation

The detailed construction looks like this:

Drill into bars on both sides. Watch out! Both drill axes have to be EXACTLY parallel! (Consult carpenter!)



Screw right-handed threaded sleeves into the drill holes. In Switzerland, threaded sleeves are available at Jumbo or in the Hasler Proficenter.



Then, screw the pot magnets into the threaded sleeves.

The wood bar with the pot magnets on the left and right has to fit tightly between the steel sides. My experience (I had 26 steps!): The distance between the steel plates varies. Therefore, I sometimes had to shorten the wood bars up to 4 mm and unscrew the pot magnets about 1-2 mm.



Articles used

GTN-32: Pot magnet with threaded stud Ø 32 mm (www.supermagnete.fr/eng/GTN-32)

TCN-32: Pot magnet with screw socket Ø 32 mm (www.supermagnete.fr/eng/TCN-32)

CSN-32: Countersunk pot magnet Ø 32 mm (www.supermagnete.fr/eng/CSN-32)

ZTN-32: Pot magnet with cylindrical borehole (www.supermagnete.fr/eng/ZTN-32)

ITN-32: Pot magnet with internal thread M6 (www.supermagnete.fr/eng/ITN-32)

ITNG-32: rubber coated pot magnet (www.supermagnete.fr/eng/ITNG-32)

PAR-33: Rubber caps Ø 33 mm (www.supermagnete.fr/eng/PAR-33)

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