Twist Lock Present

3D Printy

VIEW IN BROWSER

updated 11. 3. 2022 | published 29. 11. 2021

Summary

This tricky present has a hidden latch mechanism that will keep it securely closed until you twist the topper.

Seasonal designs   >   Winter & Christmas & New Year's

Tags: box   christmas   christmasgift   container   puzzle   twisty

This trick present has a hidden latch mechanism that will keep it securely closed until you twist the topper on the lid.

Printing

For a square boxes you will need

- 1 square_lid
- 1 square_base_[small/medium/large]
- 1 square_spring
- 2 square_latch
- 4 square_base_[small/medium/large]_ribbon
- 4 square_lid_ribbon
- 1 gear
- 1 Topper from this project or any other Twist Lock Box Project

For the flat boxes, you will need

- 1 flat_lid_[medium/large]
- 1 flat_base_[medium/large]
- 1 flat_spring_[medium/large]
- 2 flat_latch[medium/large]
- 4 flat_base_ribbon
- 2 flat_lid_[medium/large]_ribbon_short
- 2 flat_lid_[medium/large]_ribbon_long
- 1 gear
- 1 Topper from this project or any other Twist Lock Box Project

For the rectangle boxes, you will need

- 1 rectangle_lid_[medium/large]
- 1 rectangle_base_[medium/large]_[short/medium/tall]
- 1 rectangle_spring_[medium/large]
- 2 rectangle_latch[medium/large]
- 4 rectangle_base_ribbon_[short/medium/tall]
- 2 rectangle_lid_[medium/large]_ribbon_short
- 2 rectangle_lid_[medium/large]_ribbon_long
- 1 gear
- 1 Topper from this project or any other Twist Lock Box Project

All parts can be printed without supports.

The spring works best if it's printed with enough perimeter lines to make the arms of the spring solid. This works better than just increasing the infill % because perimeter lines will flow in the direction of the spring arms.

Make sure to print the correct number of lid ribbons and base ribbons.

Assembly

Assembly is the same as the original Twist Lock Trick Box. Watch this video for the complete process.

Make sure to pre-tension the sprint by one gear tooth
This will assure that the latches have a strong hold on the base. This is also necessary for the alignment of some toppers.

Make sure to glue the spring and topper
If you do not fully secure these parts, the mechanism may become detached while in a locked state. I recommend using either super glue or 3D Gloop!, but hot glue can work as well.

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This remix is based on

Twist Lock Trick Box (Hexagon)

by 3D Printy

Twist Lock Trick Box (Square)

by 3D Printy

Model Files (.stl, .3mf, .obj, .amf)   ⤓ DOWNLOAD ALL FILES

explosion_view.3mf
updated 28. 11. 2021

88.7 KB
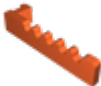
topper_tree.stl
updated 28. 11. 2021

88.9 KB

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	topper_bow_flat.stl updated 28. 11. 2021	314.6 KB	↓
	topper_bow_round.stl updated 28. 11. 2021	205.5 KB	↓
	square_lid.stl updated 28. 11. 2021	40.7 KB	↓
	square_lid_ribbon.stl updated 28. 11. 2021	6.7 KB	↓
	square_spring.stl updated 28. 11. 2021	337.2 KB	↓
	square_latch.stl updated 28. 11. 2021	67.4 KB	↓
	square_base_small.stl updated 28. 11. 2021	28.4 KB	↓
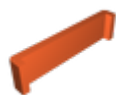
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	square_base_large.stl updated 28. 11. 2021	28.4 KB	↓
	square_base_large_ribbon.stl updated 28. 11. 2021	1.8 KB	↓
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	flat_spring_medium.stl updated 28. 11. 2021	333.4 KB	↓
	flat_lid_medium_ribbon_short.stl updated 28. 11. 2021	6.7 KB	↓

| | flat_lid_large.stl | 36.8 KB | ↓ |
| | updated 28. 11. 2021 | | |

| | flat_lid_medium_ribbon_long.stl | 6.3 KB | ↓ |
| | updated 28. 11. 2021 | | |

| | flat_spring_large.stl | 364.7 KB | ↓ |
| | updated 28. 11. 2021 | | |

| | flat_lid_large_ribbon_short.stl | 6.3 KB | ↓ |
| | updated 28. 11. 2021 | | |

| | flat_lid_large_ribbon_long.stl | 5.4 KB | ↓ |
| | updated 28. 11. 2021 | | |

| | flat_base_medium.stl | 23.7 KB | ↓ |
| | updated 28. 11. 2021 | | |

| | flat_base_ribbon.stl | 1.8 KB | ↓ |
| | updated 28. 11. 2021 | | |

| | flat_base_large.stl | 23.7 KB | ↓ |
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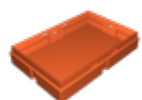
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	rectangle_spring_large.stl updated 16. 12. 2021	364.7 KB	↓
	Merged Spring - Flat Large.stl updated 7. 2. 2022	402.1 KB	↓
	Merged Spring - Flat Medium.stl updated 7. 2. 2022	400.8 KB	↓

Merged Spring - Square.stl
updated 7. 2. 2022

419.7 KB

Twist Lock Present.step
updated 11. 3. 2022

4.4 MB

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