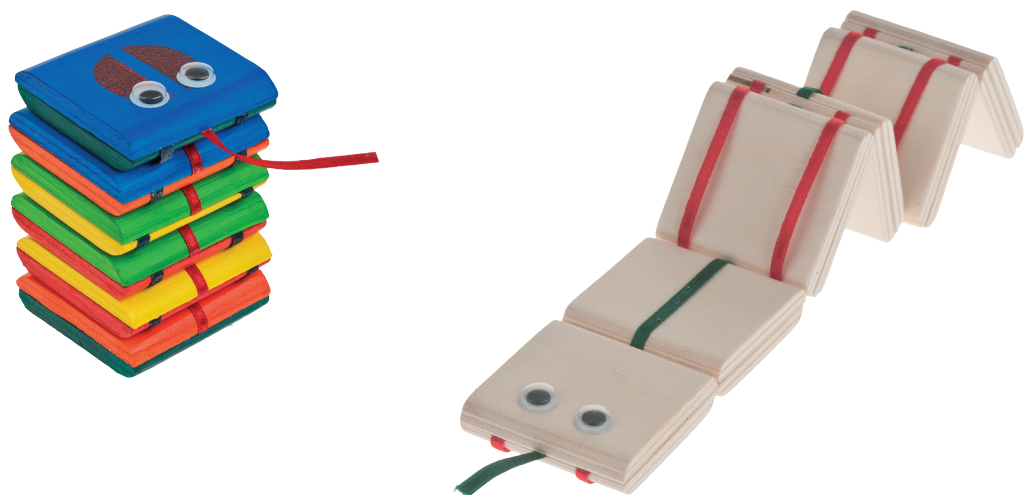


113.211

Rattle Snake



Tools required:

Wood Glue,
Paints and Brush (acrylic paint),
conceivably transparent varnish

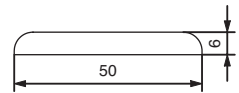
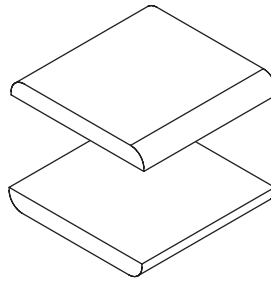
Please note

The OPITEC handcraft packs are not toys in a typical off-the-shelf sense, but rather additional teaching and learning material for educational purposes. This craft pack may only be constructed by children and adolescents under the guidance and supervision of experienced adults.
Not suitable for children under 36 months. Choking hazard!

PARTS LIST				
	Quantity	Size (mm)	Description	Part-Nr
Plywood	12	50x50x6	Segments Snake Body	1
Satin Ribbon red	1	1100	Segment Connection	2
Satin Ribbon green	1	650	Segment Connection	3
Sandpaper fine	1	120x65		
Sandpaper coarse	1	120x65		

Construction Manual

1. Sand (5) each of the 12 plywood segments (1) on two opposing sides as depicted. Then use the other sandpaper (4) to smooth the edges.



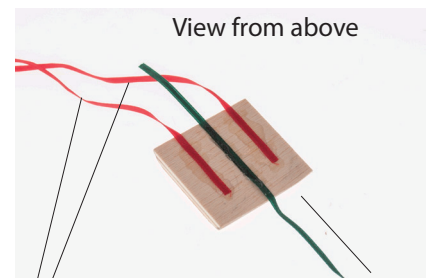
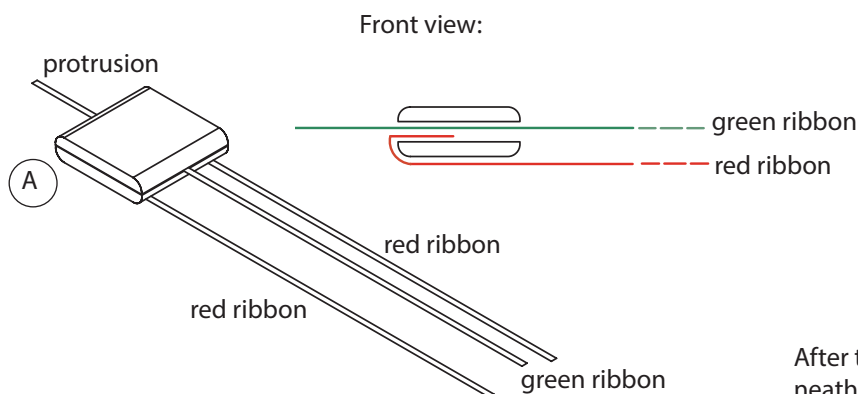
2. Paint the segments' surface according to your taste.

3. Each single snake segment consists of two wooden segments. The wooden segments are connected by satin ribbons. The gap between two segments should be 3,5 cm to 4 cm.

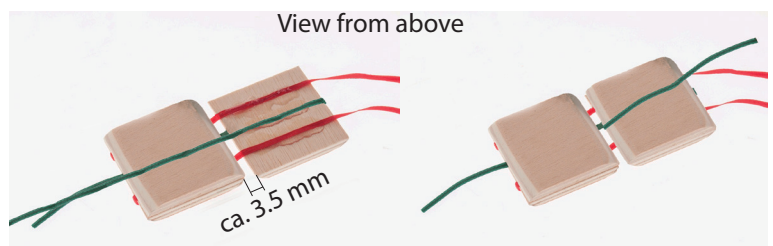
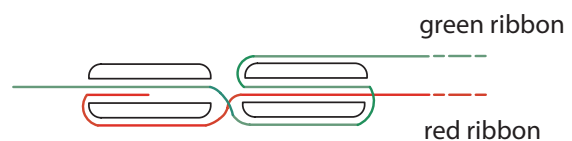
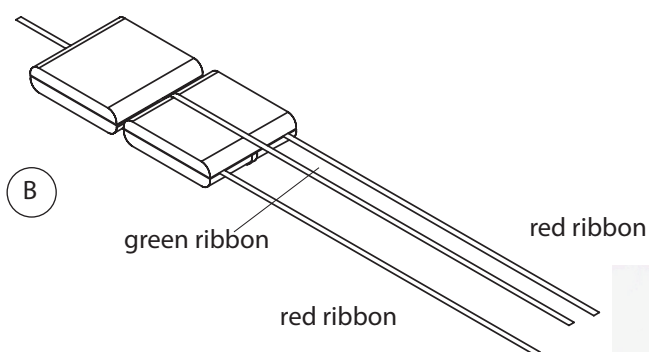
Hint:

Glue both smooth sides before attaching the ribbon as instructed. Then double-check the location and press the segments together.

4. Cut the red ribbon in half using scissors!



After the glue has set, guide the red ribbons underneath segment 1, so that both red ribbons point in the same direction like the green ribbon

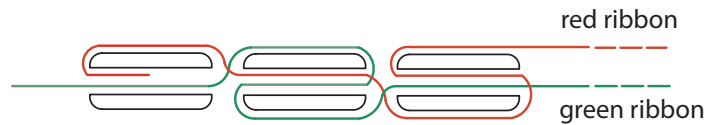
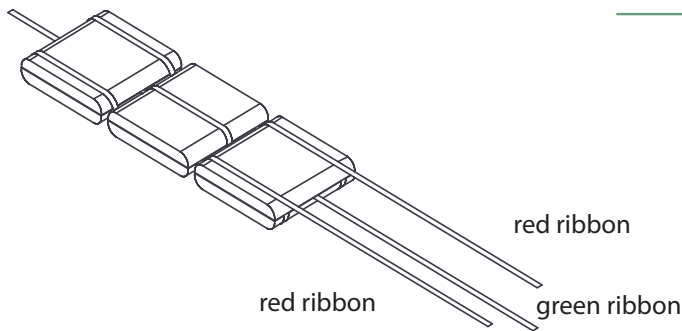


Glue the two red ribbons as illustrated to the bottom of the 2. segment keeping the same distance like with segment 1. Pull back the green ribbon centered underneath the segment and glue it between the red ribbons. Glue the smooth side of the cover onto the bottom and pull back the green ribbon on the upper side (cf. illustrations).

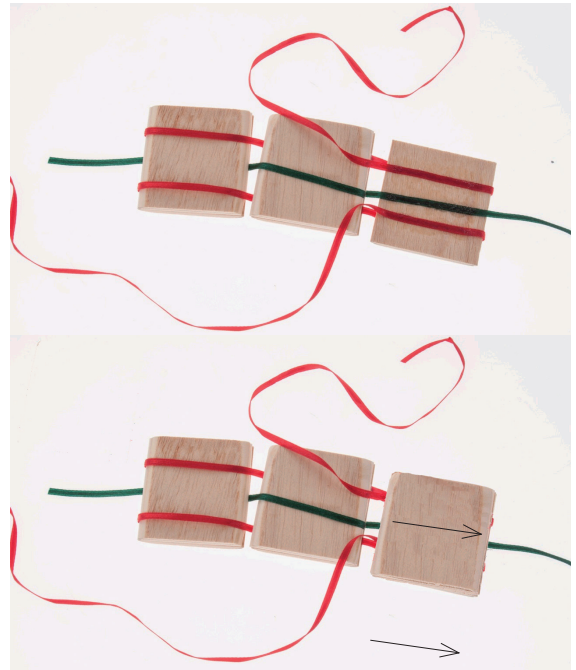
Hint: The gap between two segments should be 3,5 cm to 4 cm!

Construction Manual

C

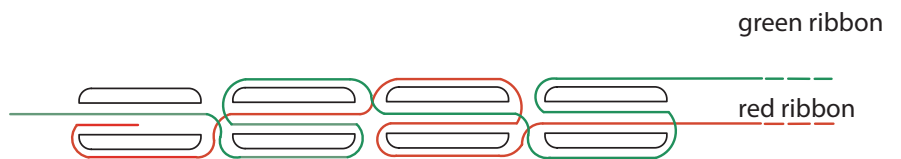
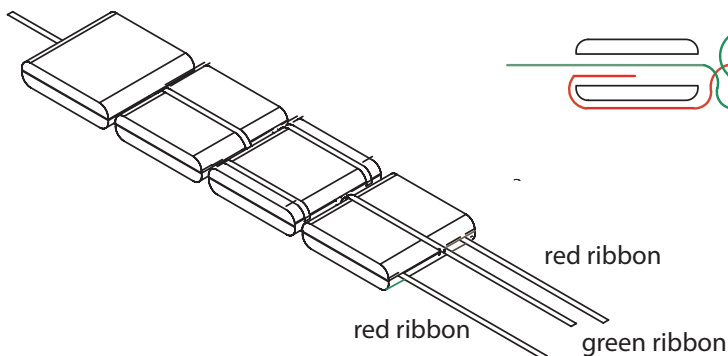


Segment 1 + 2 rotate 180° with the result that the finished upside of step B points downwards. Place the ribbons on the segment. Place a part of the 3rd segment with the smooth side pointing upwards onto the red ribbons at a distance of 3,5 to 4 cm to the 2nd segment. Guide the red ribbons upwards and stick them as illustrated.



Stick the second part of segment 3 as illustrated. Let the glue set thoroughly. Then lie the red ribbons over the segment so that they point in the same direction as the green one.

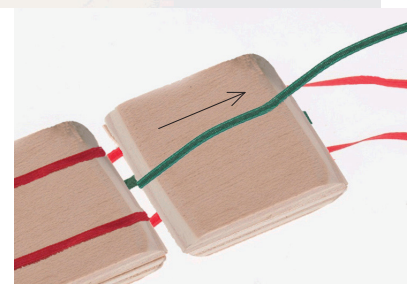
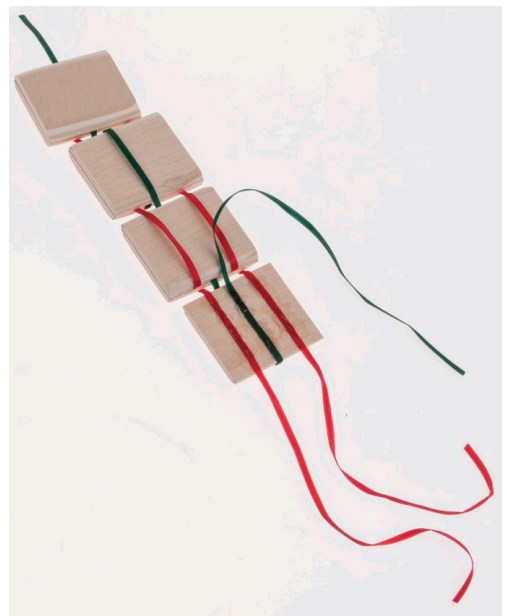
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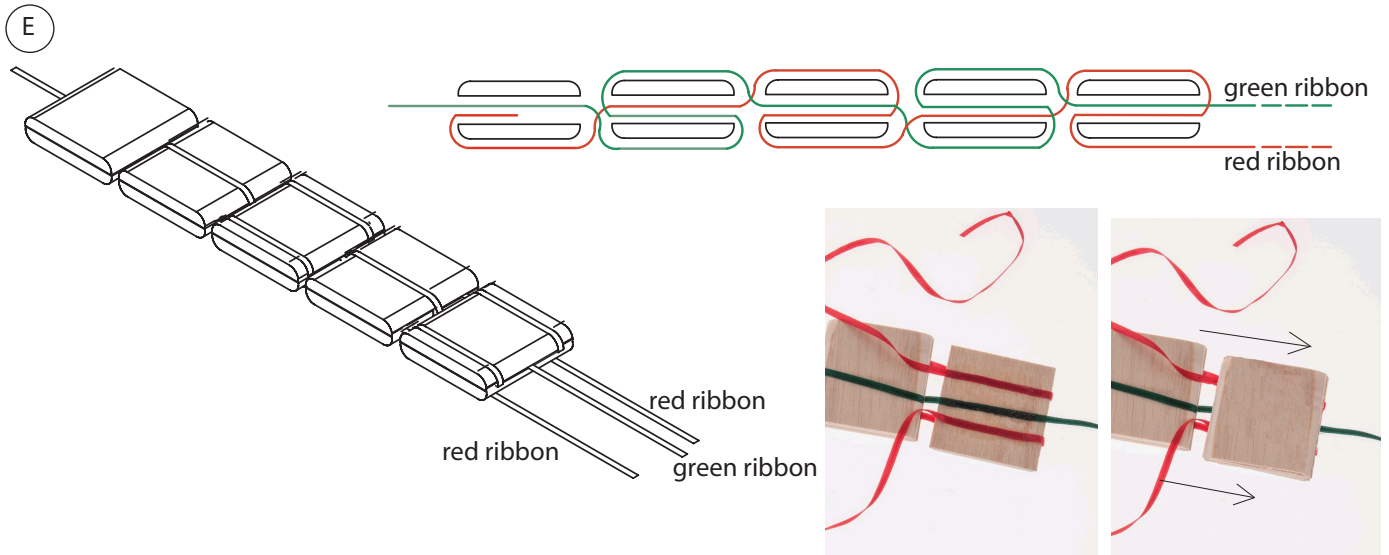
Turn around segment 1+2+3. Place the ribbons on the segment. Put the lower part of the 4th segment onto the green ribbon at a distance of 3,5 to 4 cm to segment 3.

Stick the two red ribbons to the lower part as depicted. Glue the green ribbon between the red ribbons as illustrated.

Glue the smooth face of the upper part onto the lower part. Then pull back the green ribbon around the upper part.

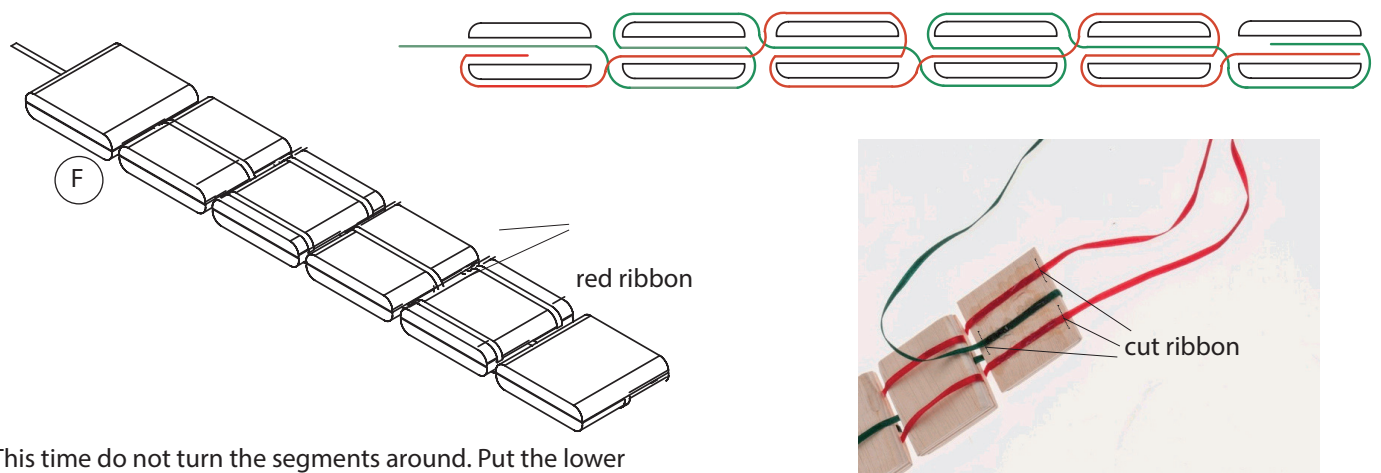


Construction Manual



Turn around segments 1+2+3+4 and place the ribbons straight. Place a part of the 5th segment, with the smooth side pointing upwards onto the red ribbons at a distance of 3,5 to 4 cm to the 4th segment. Guide the red ribbons upwards and stick them as illustrated.

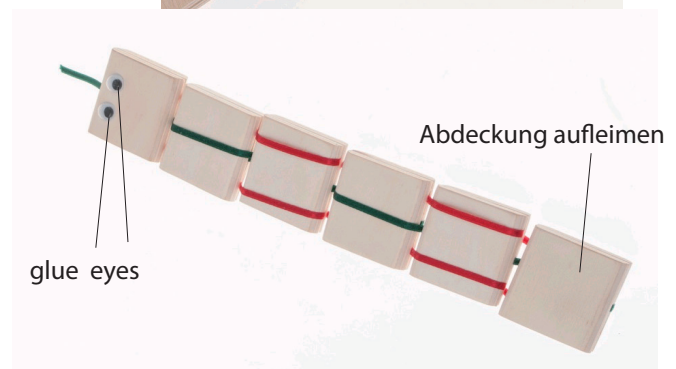
Then glue the 2nd part of segment 5 as illustrated and let it set thoroughly. Place the red ribbons on top of the segment so that they point in the same direction as the green ribbon.



This time do not turn the segments around. Put the lower part of the 6th segment on top of the green ribbon at a distance of 3,5 to 4 cm to segment 5. Stick the red ribbons as illustrated. Guide the green ribbon upwards and stick them centrally between the red ribbons.

Affix the cover of the 6th segment using glue and let it set thoroughly. Cut off the protruding ribbons (segment 6). Glue the wiggle eyes onto segment 1 using the protruding green ribbon.

Done!!!



How it works:

Hold the rattle snake at the thin side of the head next to its eyes and let its tail hang downwards. If the wrist performs a 180 degree rotation, the 2nd segment of the snake turns down. This causes a chain reaction which activates each segment successively. If you turn your hand to the other side, the effect is initiated once again, etc. in fact this is a matter of optical illusion. The way the rattle snake is constructed and its movement pattern just cause the rotation of the blocks, the illusion arises from momentum transfer.