

01

Adam & Eve

Puzzle Goal: Join the heads together, leaving the apple wrapped around Adam's legs (as in the start position shown).

Materials: Brass, steel, glass

Classification: Disentanglement



02

Barreled Bolt

Puzzle Goal: Use the vertical cuts and the middle band of the barrel to scramble and restore the bolt.

Materials: 3D-printed nylon

Classification: 5.4: Sequential Movement



03

Bastille

Puzzle Goal: Take the seven blocks out. Then put them back.

Materials: Dark walnut and beech

Classification: Disentanglement



04

Black&White Antislid

Puzzle Goal: (1) Place the three white blocks into the box so that they cannot move in the closed box, and so that the four black blocks can be added to the reopened box without moving the white blocks and the box closed afterwards.

(2) Start instead by placing the four black blocks.

Materials: Samena and hevea woods

Classification: 1.2 3-D assembly



05

Burr Lock E

Puzzle Goal: Open the shackle

Materials: Honduran mahogany, ash, bocote

Classification: Interlocking



06

BurrNova

Puzzle Goal: Remove the key piece and disassemble.

Materials: Wood, magnets, metal pins

Classification: Interlocking

Notes: This is a semi-automatic burr, with magnets providing surprising help along the way.



07

Clover

Puzzle Goal: Remove the metal ring

Materials: Metal, wood, rope

Classification: Topological disentanglement



08

Colonel's Bouquet

Puzzle Goal:

1. For any pair of pieces, join to form a symmetric shape.
2. Join all four pieces to form a solid box.

Materials: Koa wood, Brazilian rosewood

Classification: Slocum 1.2: 3-D Put-Together Puzzles



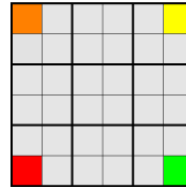
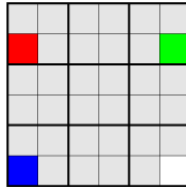
Color Cube Sudoku

Puzzle Goal:

1. Arrange the nine cubes in a square, so that the colors form a 6x6 Latin Square.

2a. Goal #1, additionally every 3x2 rectangle that includes exactly two cubes must contain all six colors, and the overall pattern matches the first color template below.

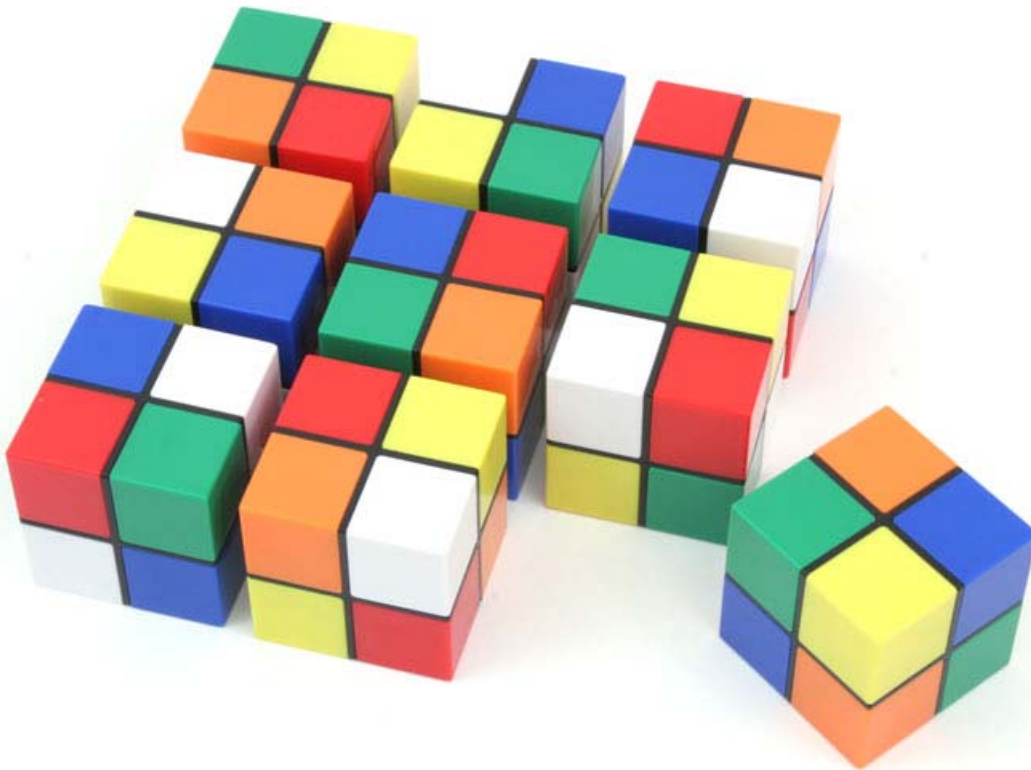
2b. Goal #1, additionally the four squares that comprise the edge between any two neighboring cubes must form an X, where each pair of squares share the same color, and the overall pattern matches the second color template below.



3. Ignore the RWBG cube, and arrange the remaining cubes into a larger cube so that each 4x4 face is a Latin Square. Bonus challenge: no color can appear more than three times on any face.

Materials: Plastic

Classification: Put-Together



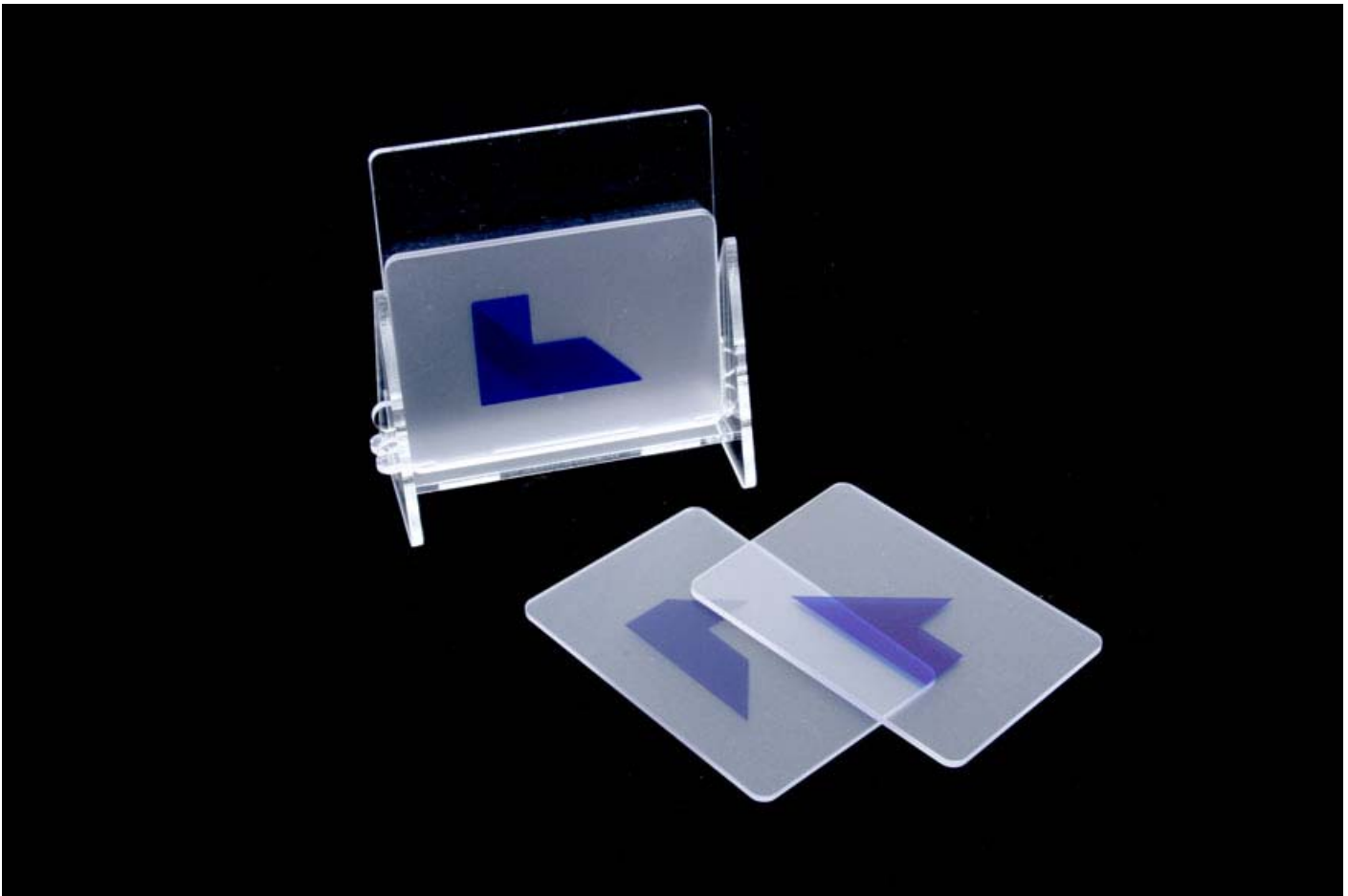
10

Congruent Figures by Overlapping

Puzzle Goal: Divide the four panels into two groups and overlap each pair to make congruent figures.

Materials: Acrylic

Classification: 2D assembly puzzle



11

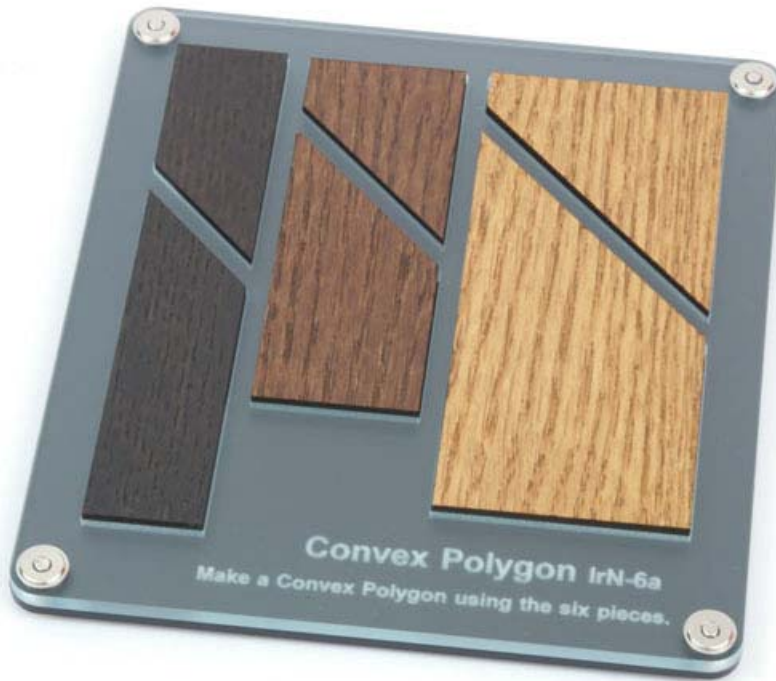
Convex Polygon IrN-6a

Puzzle Goal: Make a convex polygon using the six pieces

Materials: Wood, MDF, acrylic

Classification: 2D assembly puzzle

Notes: The pieces are very precise, and so is the solution; beware of near-misses.



12

Cubemaker

Puzzle Goal: Put the five blocks together to make five dark cubes.

Materials: Dark walnut and beech

Classification: Put-together



13

CUBI 20

Puzzle Goal: Pack the five pieces into the box.

Materials: Wood (elm, wenge, zebrawood, walnut)

Classification: 3D assembly



Diabolical 3 Cubed

Puzzle Goal: With a single set of nine tiles, there are three different puzzle configurations, each with a unique solution.

1. The tiles can be placed into the 3D tray such that the twelve meeting edges show the 12 pentomino shapes.

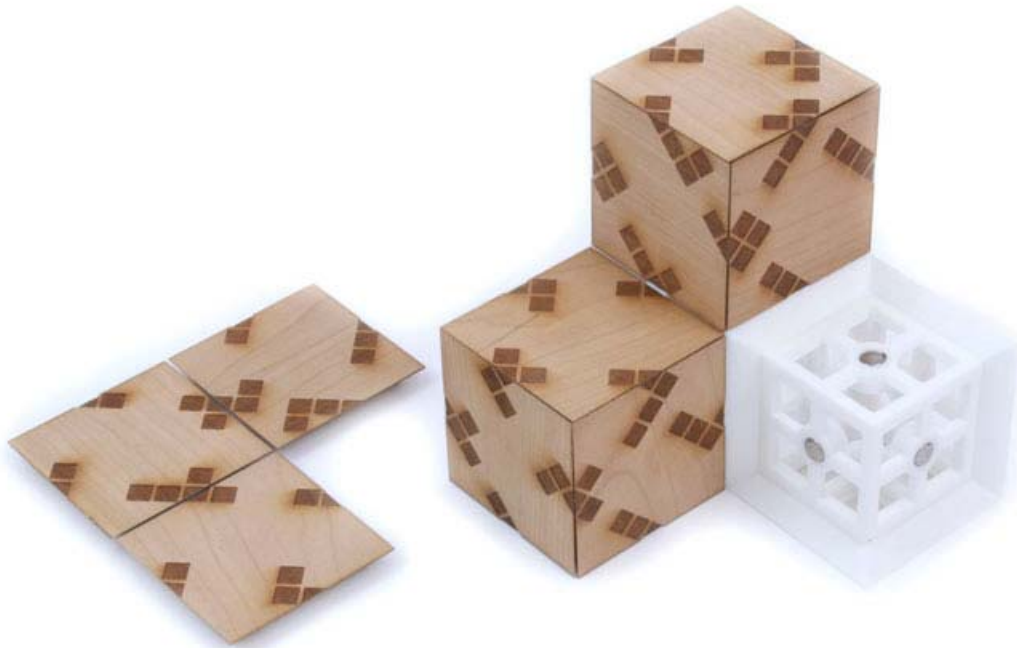
2. Six of the nine tiles can form a cube such that the twelve edges show the 12 pentomino shapes.

3. And of course, like Nob's original design, the nine tiles can be placed in a 3x3 grid, producing the 12 pentomino shapes.

Materials: Wood, plastic, magnets

Classification: 1.1 Put-together, 2D assembly

Notes: This is an homage to Nob's Diabolical 3x3.



15

Down the Rabbit-Hole

Puzzle Goal: Open the box and find the White Rabbit.

Materials: Nogal (walnut), curly maple, aluminum

Classification: 2.1 Trick or secret opening box



16

The Egyptian Glove - Band

Puzzle Goal: Use the canvas band to cover all surfaces of the tetrahedron.

Materials: Wood, canvas, thread

Classification: 1.3 Misc. put-together



17

The Egyptian Glove - Triangles

Puzzle Goal: Use the four triangular canvas pieces to cover all surfaces of the tetrahedron.

Materials: Wood, canvas, thread

Classification: 1.3 Misc. put-together



18

Fang Duet

Puzzle Goal: Disentangle the two parts

Materials: Steel nails

Classification: Disentanglement



19

Fang Quartet

Puzzle Goal: Disentangle the four parts

Materials: Steel nails

Classification: Disentanglement



20

Four Hands Puzzle

Puzzle Goal: Take it apart, and put it together

Materials: Wenge, acacia, padauk and purpleheart woods

Classification: Slocum 3.4 Interlocking Solid Puzzles/ Burrs



21

Free Me 5

Puzzle Goal: Free the coin from the puzzle

Materials: Wood, metal rods/springs/nails, steel balls, coin

Classification: Take-apart

Notes: Everything needed to solve is provided. Contains small rolling parts; please ensure that removed parts are not swallowed or roll away. No excessive force, banging, bending, or burning is required.



22

Free the Marble

Puzzle Goal: Free the marble hidden inside the cube

Materials: Wood, marble

Classification: Interlocking



23

Galette

Puzzle Goal: Put the five pieces into the box

Materials: Wood and MDF (color print)

Classification: Put-together, sliding pieces



24

Ze Genie Bottle

Puzzle Goal: Open the bottle and get the reward.

Materials: Wood

Classification: Slocum 2.1



25

Hardcore

Puzzle Goal: Pack the three identical pieces into the spherical capsule, so that it closes without excessive force.

Materials: Plastic

Classification: 1.2 3-D assembly



Hazmat Cargo

Puzzle Goal: Pack the nine assemblies, each consisting of six hasmat drums, onto the barge, an 11 by 11 array, such that no two assemblies touch, not even at a corner. (Any contact could lead to cross contamination, resulting in unwanted chemical or nuclear reactions.)

Materials: Polyamide and stainless steel

Classification: 1.1 2-Dimensional assembly puzzle

Notes: Each of the possible 70,607,460 sets of nine hexominoes has at least one solution; this puzzle uses the only set with a unique solution.



27

Homage to Mr Rubik "Egg"

Puzzle Goal: Insert the wand into the cube, then manoeuvre it through the spatial labyrinth from the starting point to the exit point, rotating the three layers as needed.

Materials: Cherry wood

Classification: Sequential movement

Notes: This is a 3-layer "Smart Egg" style of puzzle, originally designed by Andras Zagyvai.



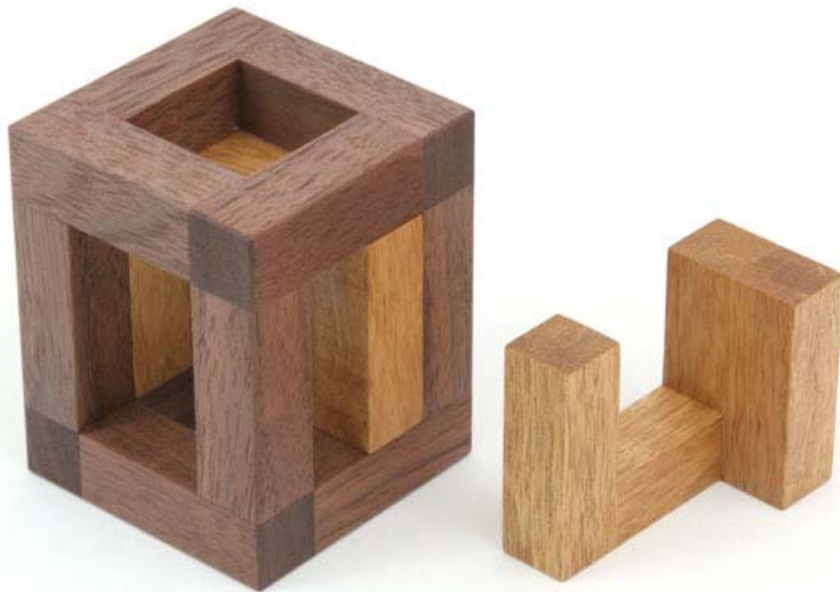
28

Identical Twins

Puzzle Goal: Assemble two pieces fully inside the frame

Materials: Wood

Classification: Interlocking



29

In a Cage

Puzzle Goal: Open the box

Materials: Wedding cake tree, red toon, cherry

Classification: 2.1 Trick or secret opening puzzle



30

Kakoi

Puzzle Goal: Open the box

Materials: Monarch birch, walnut, Japanese cherry

Classification: 2.1 Trick or secret opening puzzle



31

Kissel

Puzzle Goal: Make an icosahedral shape

Materials: Plum tree

Classification: Interlocking puzzle



32

Lacing Problem

Puzzle Goal: Connect the holes with the shoelace, with colors matching as indicated on the board, and not allowing any slack at the back.

Materials: MDF, shoelace

Classification: Put-Together



Legominoes

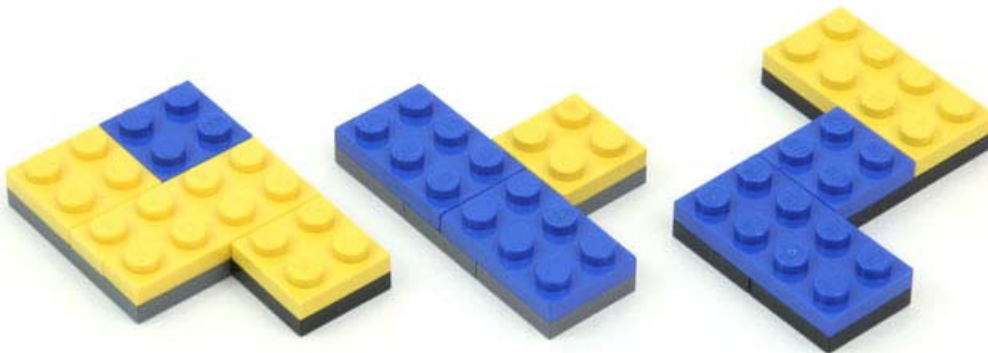
Puzzle Goal: Using all of the pieces, form a Legomino with the following attributes:

- a) Rotational symmetry
- b) Mirror symmetry
- c) Yellow and blue shapes are congruent (may be rotated or reflected)
- d) Both the yellow and blue shapes are symmetric

Materials: Lego

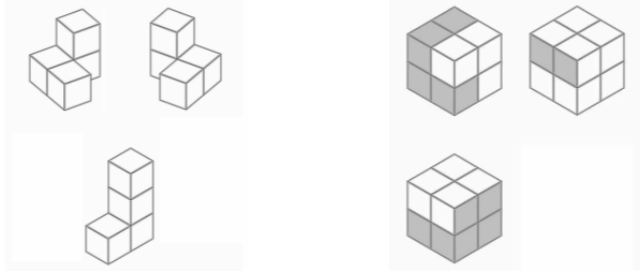
Classification: 1.1 2-Dimensional assembly puzzle

Notes: A Legomino is a one-sided polyomino made from Lego.



Lucky Cube

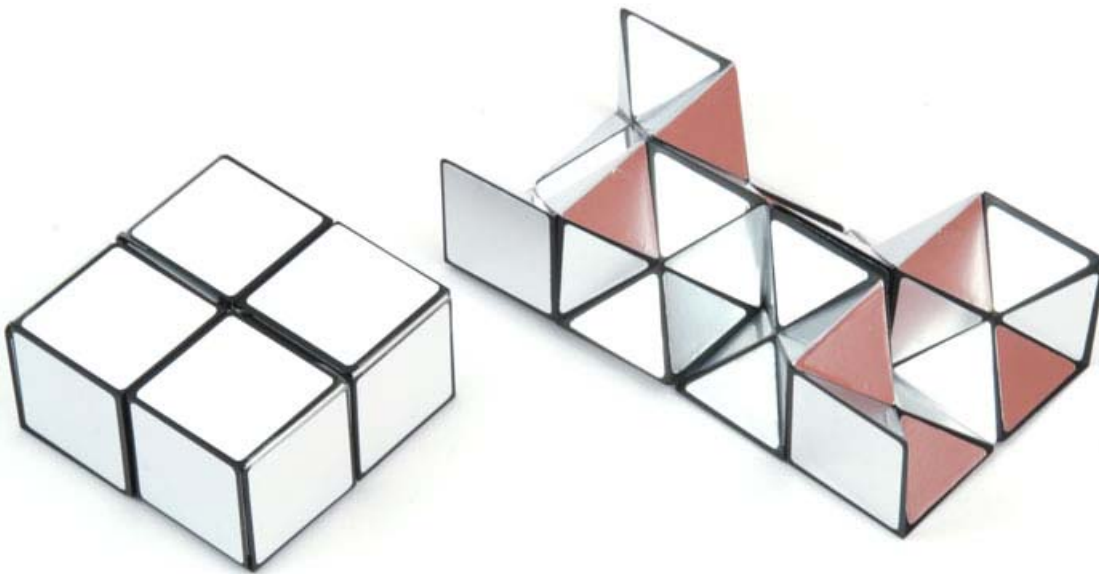
Puzzle Goal: Form a variety of shapes with the two differently colored pieces, for example:



Materials: Plastic

Classification: Interlocking puzzle

Notes: Similar to, but different from the Yoshimoto Cube #1



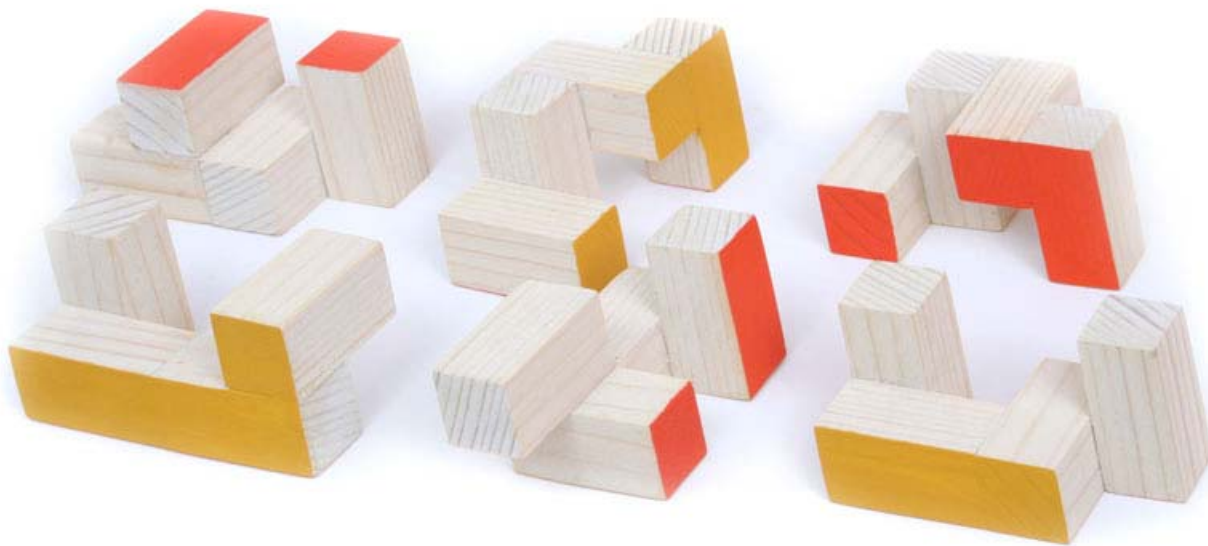
38

Neckische Würfel (Mischievous Cubes)

Puzzle Goal: Assemble the six puzzle pieces (each with both colors on opposite sides) to simultaneously form a red and a golden "cube".

Materials: Painted wood

Classification: ASS-POLY



35

MiSenary Puzzle Box

Puzzle Goal:

1. Open the box by removing the lid.
2. Close the box by inserting the lid and bringing it back to the start position.

Materials: hardwood, trespas, metal

Classification: Slocum 2.1 trick or secret opening puzzles



36

Moulin Rouge

Puzzle Goal: Open the mill and find the hidden CanCan dancer.

Materials: Wood (amarant,merbau,beech), polyscrew, neodymium magnets

Classification: OPN OTH



37

The Mouse's Tale

Puzzle Goal: Open the box

Materials: Walnut

Classification: OPN

Notes: No force is required.



39

No Full Pirouette!

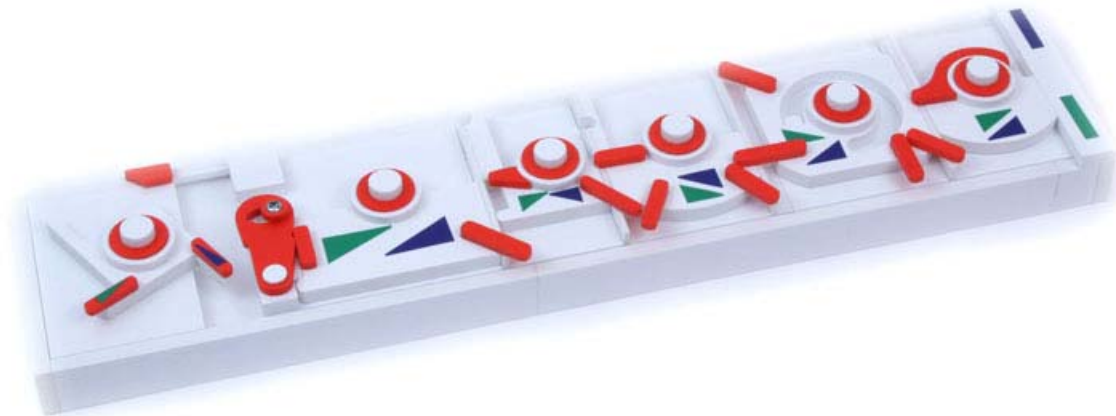
Puzzle Goal: Spin and slide the boards successively so that all of the blue triangles point to the right. Then restore the starting positions (all green triangles pointing to the right).

Materials: Vinyl

Classification: Sequential motion

Notes: No force is required.

Each of the six modules obeys various recursive cardinalities: variations of binary, ternary, and quaternary.

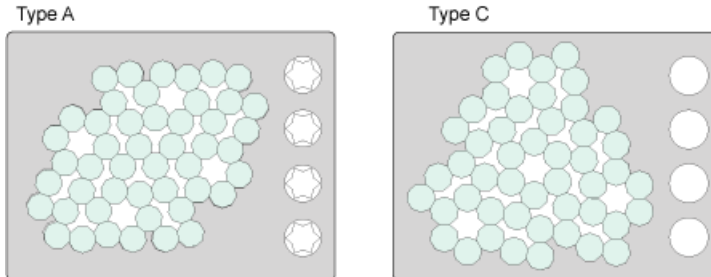


40

Nonagon 48

Puzzle Goal:

- 1) Put the 11 kinds of tetranons and two dinons (total 48 nonagons) into either the type A or C tray.
- 2) Find the solutions with all black surfaces.



Materials: Wood

Classification: Put together



41

La Pajarita Convexa (The Convex Bow Tie)

Puzzle Goal: Find all 11 convex shapes made using the eight identical triangles.

Materials: Cherry wood

Classification: 1. Put-Together 1.1. 2-Dimensional assembly



42

Pencil Box

Puzzle Goal: Open the box with care

Materials: Ash, magnet

Classification: Take-Apart



43

Pent Up

Puzzle Goal: Place all 12 pentomino pieces on one of the six boards so that the same color shows through each of the holes (and simply cover the black squares with the blue tiles). For each board, only three colors can be solved.

Materials: Perspex/cardboard

Classification: Put-together puzzle



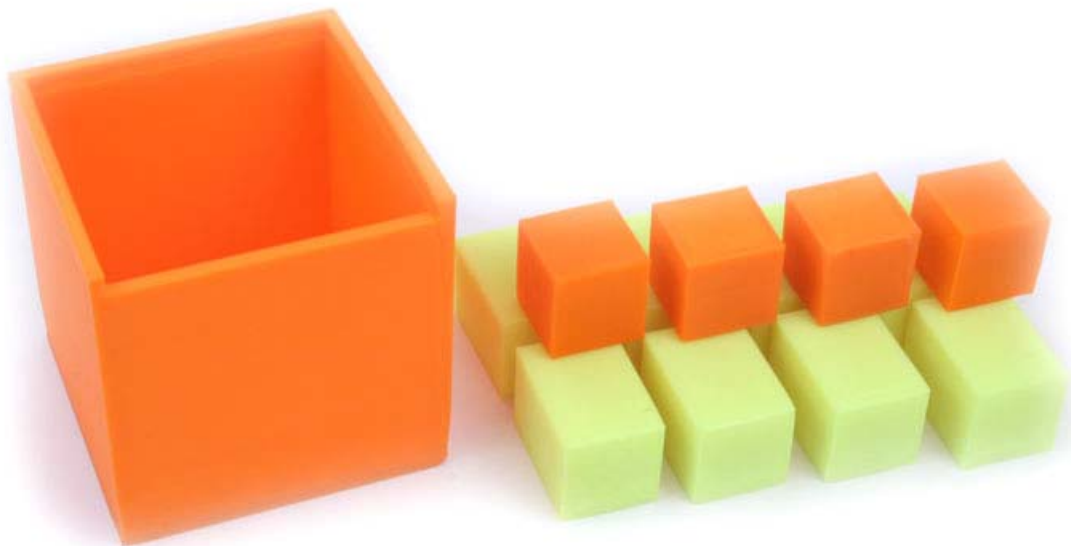
44

Perfect Match

Puzzle Goal: Put the 12 blocks (four cubes, eight cuboids) into the box and close the lid smoothly. No force is required.

Materials: 3D printed plastic

Classification: 3D Box packing



45

Puzzle Bracelet

Puzzle Goal: Take apart, and put together

Materials: 3D printed ABS

Classification: Take-apart



46

The Rocking Horse Puzzle

Puzzle Goal: Rock the horse, and find the nice award as it rocks.

Materials: Kotibe, ebony, mutenye

Classification: Sequential discovery



47

Ruled Cube

Puzzle Goal: Use the eight pieces to make a cube

Materials: 3D printed nylon

Classification: 3.2 Interlocking solid



48

Sequence Logic

Puzzle Goal: Raise all four locks on the lid to open the puzzle box

Materials: Katalox, maple, cherry, tulip poplar

Classification: Misc. sequential movement



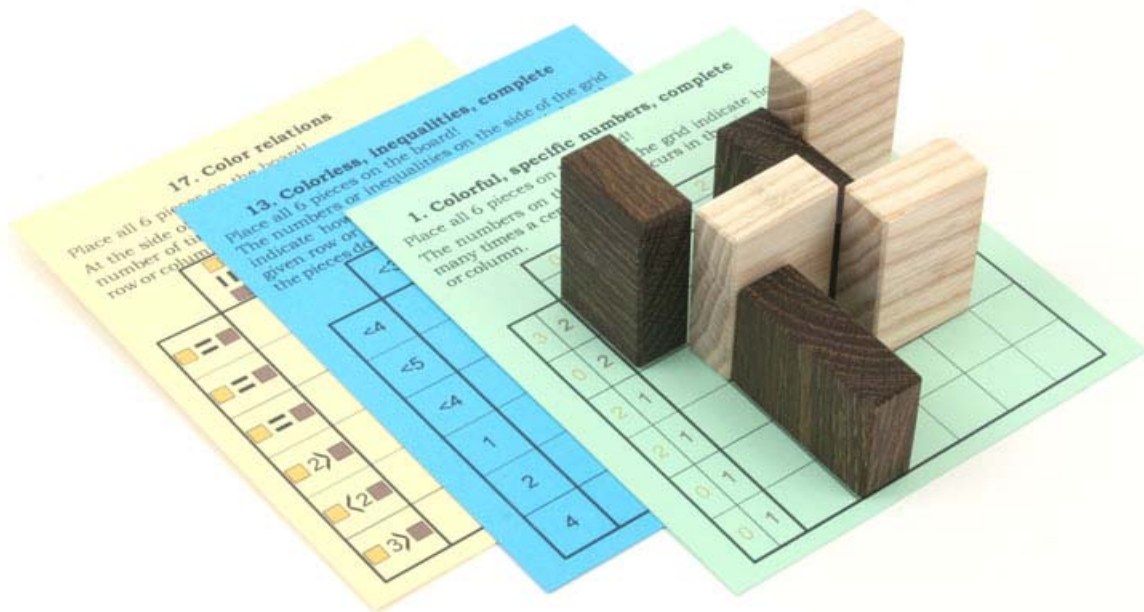
Simplography

Puzzle Goal: Place the six colored blocks on a card, satisfying all of the logical constraints. Blocks can be placed in any orientation but must be within the 6x6 grid.

Materials: smoked oak, ash, paper

Classification: 1.3 Miscellaneous put-together puzzle

Notes: There are 20 challenge cards; cards #1, #6, #11, #17 are recommended.



50

Six-Cross

Puzzle Goal: Assemble the six identical pieces, and a magnet, to form a cubical shape with a cross on each face.

Materials: Cast iron and magnet

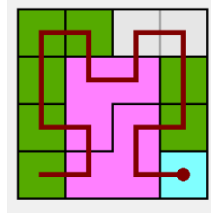
Classification: Put-together



51

Sliding Maze

Puzzle Goal: Start from the initial position (see below), and move the key piece from lower-right corner to the lower-left corner.



Materials: Acrylic

Classification: Sequential movement, 2-D sliding piece puzzle



Sliding Tetris

Puzzle Goal: Remove the ball, then restore the starting position

B			6	6	5	6	6	7
3	5	5			5	6	7	7
3	3	3		7			7	
Bottom Layer			Middle Layer			Top Layer		

(Each digit represents a separate piece; gold is the larger exit hole)

Materials: PLA and acrylic

Classification: Sequential movement



53

Ze Super Pens

Puzzle Goal: Remove the jewel from inside each pen

Materials: Brass and acrylic

Classification: Slocum 2.1



54

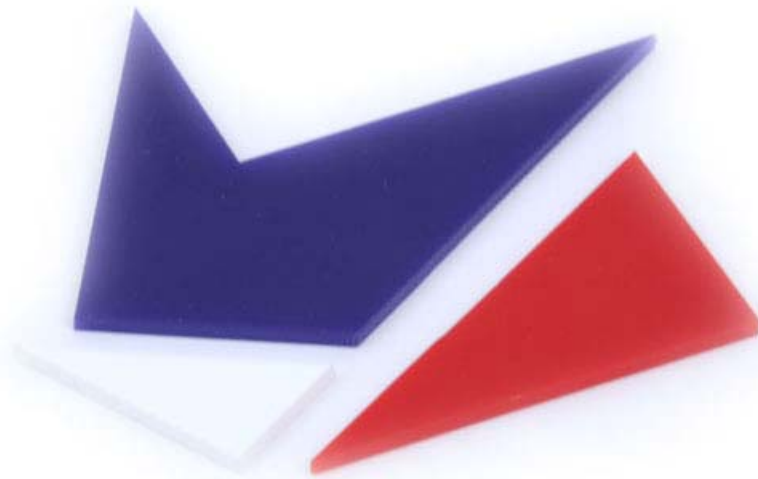
Sym-353

Puzzle Goal: Place the three pieces flat on a surface to form a symmetrical shape.

Materials: Acrylic

Classification: 1.1 2D assembly

Notes: There are four solutions.



55

Symmetrominoes

Puzzle Goal:

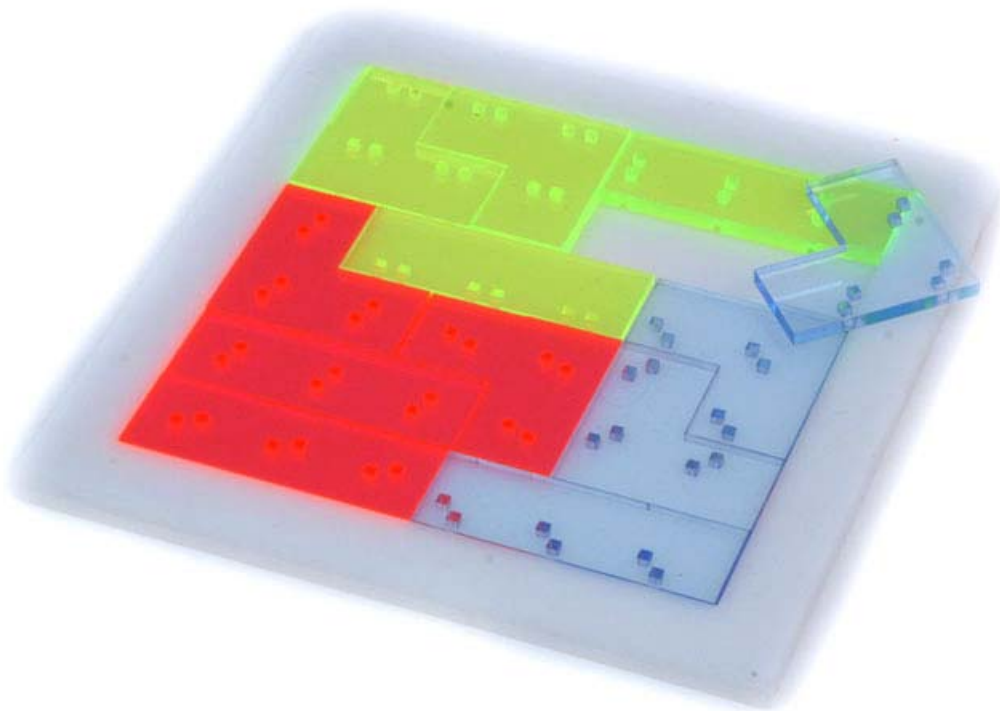
1. (Warmup) Fill the tray with the pieces.
2. As above, but all pieces of the same color must have holes aligned the same way.
3. As in #2, and the pieces of each color must form connected groups.
4. As in #2, and no two pieces of the same color may touch along an edge. (They may touch at corners.)

Materials:

Acrylic

Classification:

Slocum 1.1: Put-together, 2D Assembly



56

Tagai

Puzzle Goal: Open the box

Materials: Walnut, kenponashi, katsura, kaya

Classification: 2.1 Trick or secret opening puzzle



57

There Goes Bill

Puzzle Goal: Set Bill the Lizard free from the chimney

Materials: Wood, magnets

Classification: Trick-opening box

Notes: No force required; take care of delicate parts



Threaded

Puzzle Goal:

1. Assemble the four L-shaped pieces using the two longer bolts so that they form a 2x2x3 shape whose components stay connected in one piece after assembly.

2. Now do the same using the two longer bolts as well as the shorter bolt.

Each bolt must go through more than one piece and must be fastened with a nut on its far end.

Materials:

Vintage spools/thread, thimbles, bolts, nuts, washers

Classification:

Put-together



59

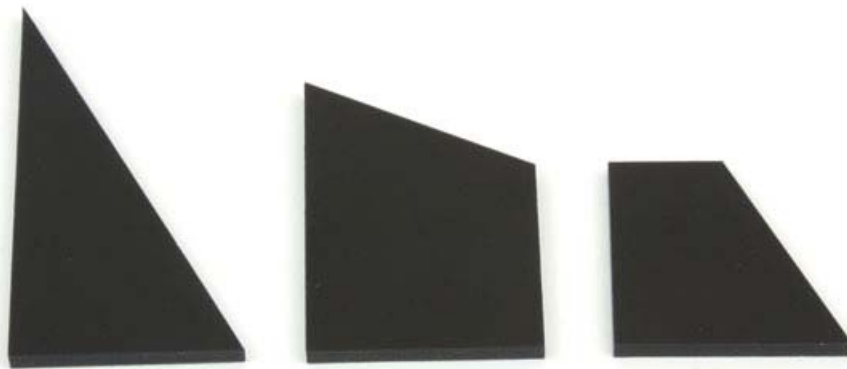
3 Pieces 9 Symmetric Shapes

Puzzle Goal: Use the three pieces to make a symmetric shape.

Materials: Plastic

Classification: 2D assembly

Notes: There are nine solutions



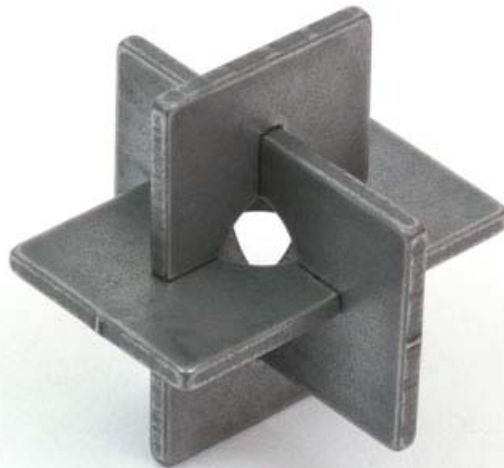
60

Tripla

Puzzle Goal: Take apart, and put together

Materials: Stainless steel

Classification: Interlocking



61

Tweedledum and Tweedledee

Puzzle Goal: Completely separate Tweedledum from Tweedledee, and find the secret compartment. Then reassemble.

Materials: Blackbean, silver ash, blackbutt, brass, stainless steel

Classification: 2.1 Trick or Secret Opening

Notes: Take care of the small parts that come loose



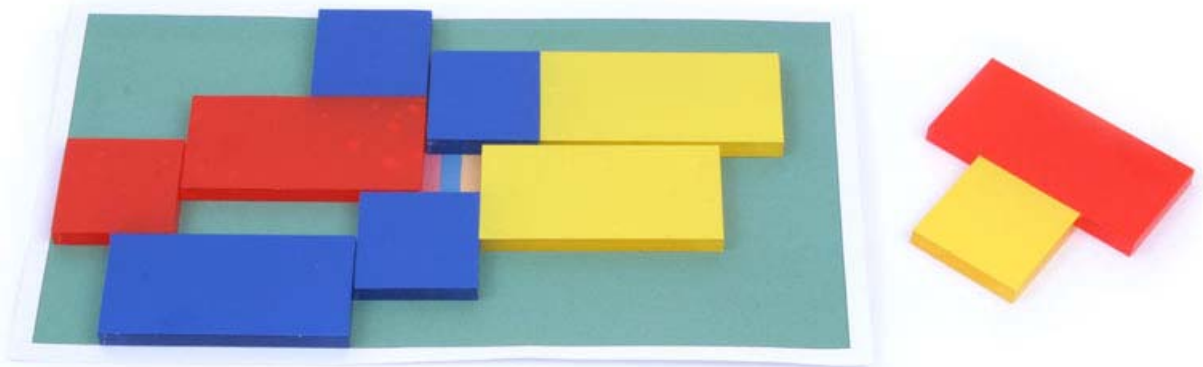
62

2&1

Puzzle Goal: Arrange the five pieces on the grass so all pieces of the same color (which includes the given pieces in the grass) are connected.

Materials: Acrylic

Classification: Put-together



63

Unlawful Assembly

Puzzle Goal: Pack the pieces flat into the box

Materials: Maple box; yellowheart and granadillo pieces

Classification: Put-together



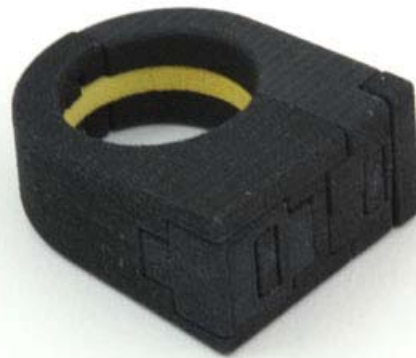
64

Will You Marry Me #50

Puzzle Goal: Take apart to reveal the "diamond ring"

Materials: 3D printed strong, and flexible plastic

Classification: Take-apart



65

XYZ Cube

Puzzle Goal: Use the eight pieces to make a cube

Materials: 3D-printed nylon

Classification: 3.2 Interlocking solids



66

Yo Dawg, I Herd You Like Hexominoes

Puzzle Goal: Find the one intended way to assemble the hexominoes into a rectangle using the piece colors, materials, and colored vinyl markings on the mat as hints.

Materials: Acrylic, cloth, rope, plastic, vinyl

Classification: Put-together

