01

Ball and Ring Pseudo-Jiggle Puzzle

Puzzle Goal: **Place the pachinko ball at the top of the hill, with the wooden ring around the top of the hill.**

Materials: Wood, iron ball, acrylic plate

Classification: Dexterity

02

Billard

Puzzle Goal: **Find the eight-ball**

Materials: Aluminum/stainless steel

Classification: Sequential Discovery (2.1 Trick Opening, 5.5 Maze)

03

Bitcoin Maze

Puzzle Goal: **Remove the coin**

Materials: Trespa, steel balls

Classification: Sequential Discovery (Take Apart)

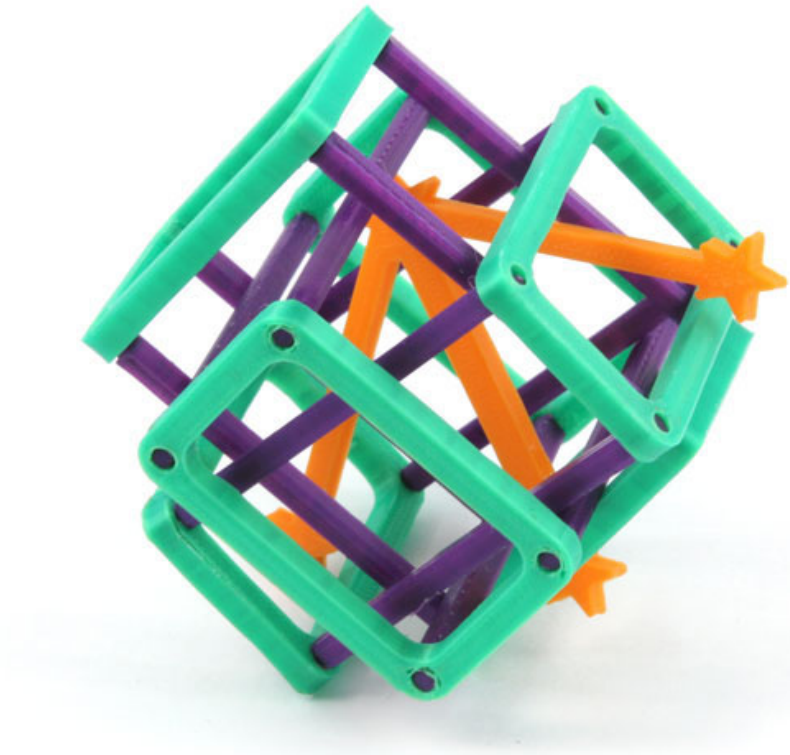
04

Borromean Cage

Puzzle Goal: **Remove the constellation from its Borromean cage, then return it to inside the cage.**

Materials: Plastic

Classification: 3.6 Misc. Interlocking



05

The Box of the Celts

Puzzle Goal: **Unravel the knot to unlock the mysteries and find your prize.**

Materials: 3D-printed PLA+

Classification: Sequential Discovery (Take-Apart, Maze, etc.)

Notes: No bending of plastic components or undue force is required or allowed.

06

Boxy

Puzzle Goal: **Pack the pieces into the box with rotating panels**

Materials: Wood

Classification: 1.2 3D-assembly

07

Brass Monkey 4

Puzzle Goal: **Disassemble and reassemble the six piece cylindrical burr.**

Materials: Brass

Classification: INT-OTH, RTF-ANY, OPN-OTH

Notes: A trick opening puzzle disguised as a burr

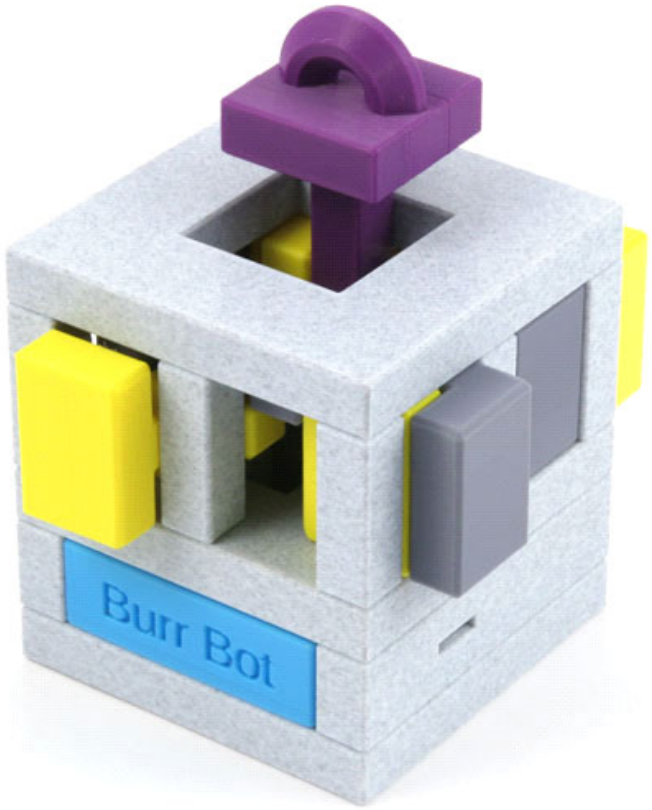
08

Burr Bot

Puzzle Goal: **Discover what the Burr Bot has eaten.**

Materials: PLA plastic and magnets

Classification: Hybrid - Burr Puzzle and Trick Opening Box



09

Butterfly Loops

Puzzle Goal:

- **Link the pieces outside the tray into a loop of any shape and any number of pieces from 3 up to all 12.**
- **Fit the set of 12 pieces in the tray**

Materials: Walnut and alder

Classification: 2-D assembly

10

Caffe Latte

Puzzle Goal: **Pack the seven pieces and the sugar cube into the cup, and enjoy your drink! Then also enjoy the unpacking experience.**

Materials: 3D-print

Classification: ASS-OTH

11

Chiral 2&2

Puzzle Goal: **Pack the four pieces into the box.**

Materials: Wood, acrylic

Classification: 3D Assembly

12 Coherent Convoys

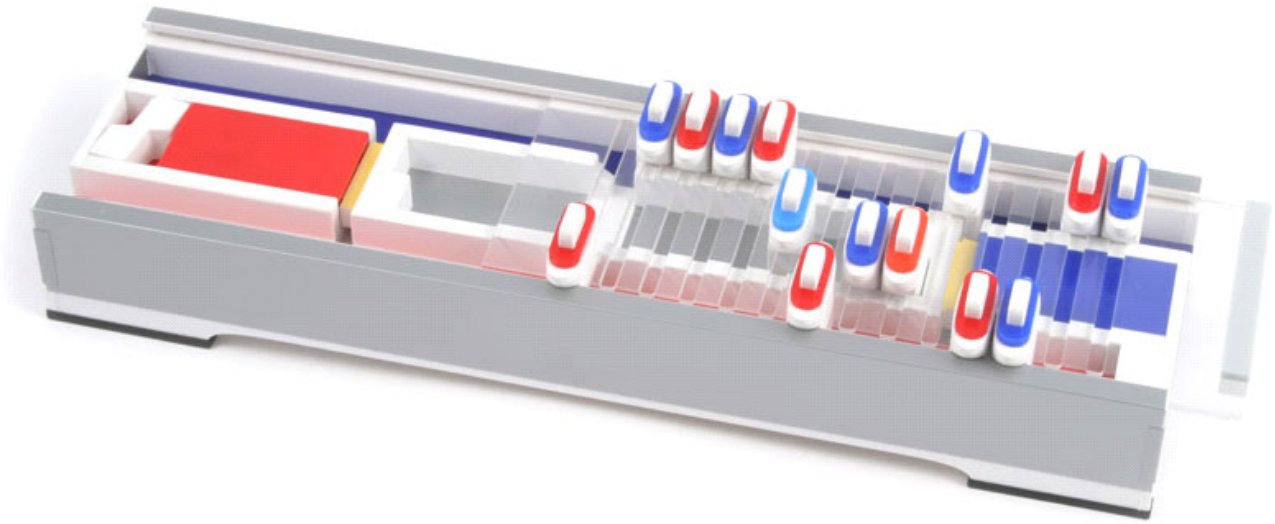
Puzzle Goal:

- **Move all ships from the starting (blue) channel through the lock (gray channel) and into the red channel.**
- **Add the small spacer at the blue end of the lock, then move all ships from the red channel to the blue channel., except that the guard ships (light red and light blue) will remain in the lock.**
- **Add the large spacer at the red end of the lock (remove the small spacer), then move all ships from the blue channel to the red channel, again leaving the guard ships in the lock.**

Materials: Vinyl, acrylic

Classification: 5.3. Sequential Movement

Notes: The clear slider moves left and right until a ship hits the end of the lock; depending on the position of the ship inside the slider, pushing against the end of the lock will create openings between the lock and the blue/red channels.



13

Coin Puzzle

Puzzle Goal: **Remove the coin**

Materials: Wood, acrylic

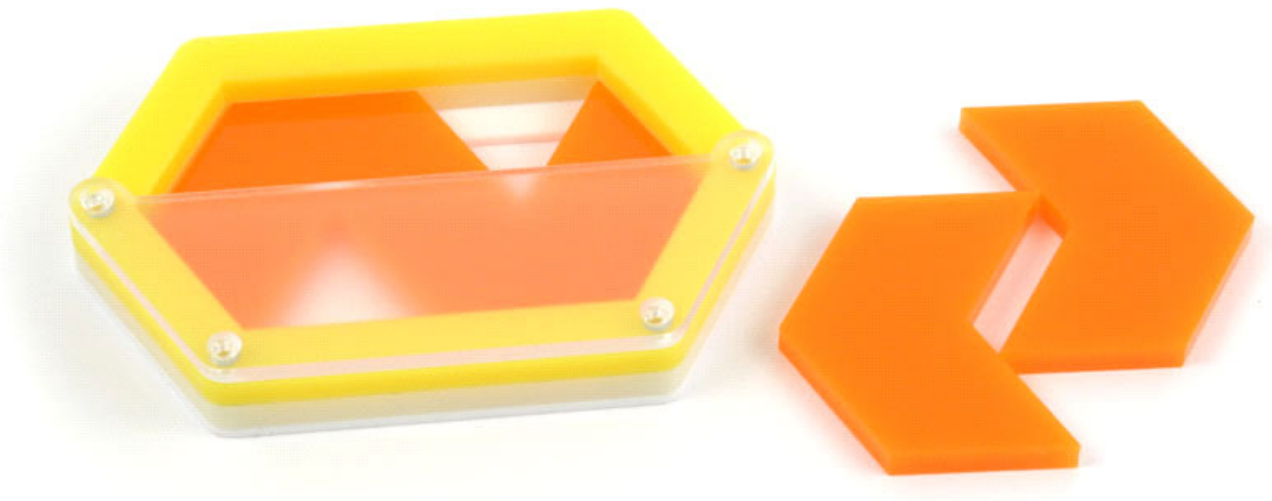
Classification: Take-Apart

14 Croissant

Puzzle Goal: **Place the four pieces inside the hexagonal tray.**

Materials: Acrylic

Classification: 3D Assembly



15

Crypt

Puzzle Goal: **Access the secret compartment and decipher the plaque inscription.**

Materials: Painted PLA+

Classification: Take-Apart

16

Cuplik

Puzzle Goal: **Assemble the 27 cubes to obtain a 3x3x3 cube with each of the six faces showing a single unique color..**

Materials: Walnut, Plexiglass, Poplar plywood

Classification: Put -Together

Notes: Three of the nine colors must be completely hidden.

17

Cyclone

Puzzle Goal: **Disassemble and assemble the four mutually interlocked pieces.**

Materials: Zinc alloy

Classification: Take-Apart

Notes: The pieces are similar but not identical.

18

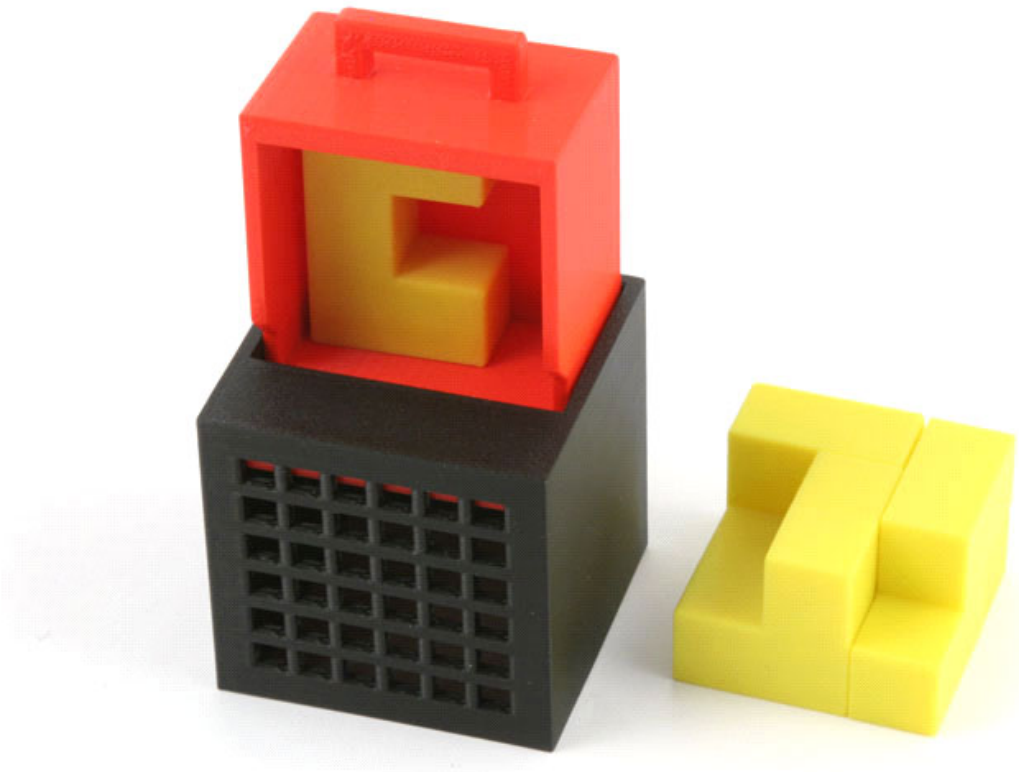
Darwin's Drawer

Puzzle Goal: **Put the four pieces into the drawer and close it.**

Materials: PLA

Classification: 3D assembly

Notes: The drawer's movement will be restricted by the pieces inside of it.

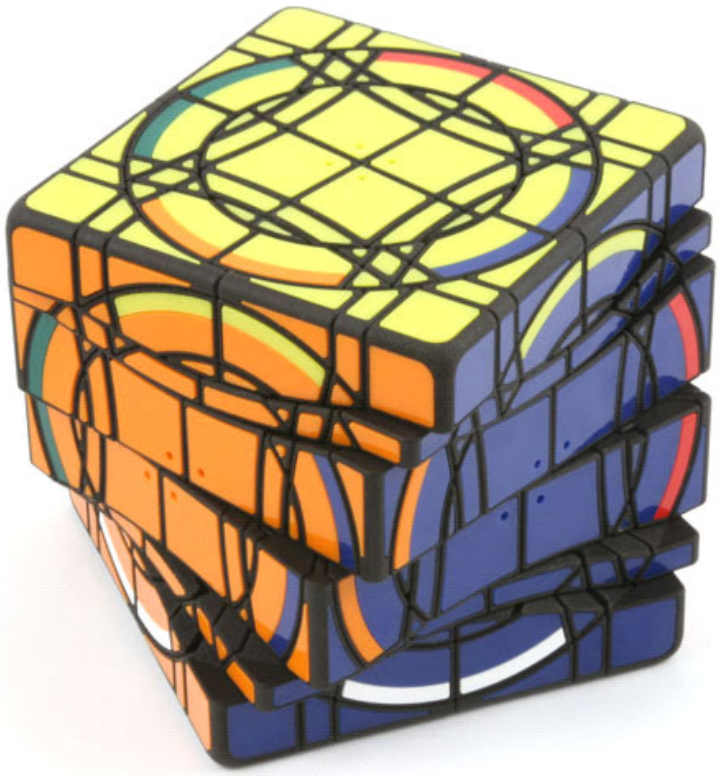


19 Double Circle Real 6x6x6

Puzzle Goal: **Restore the puzzle to its solved state. Each face should be a single color, with the exception of super-stickered components that have a secondary color to give otherwise identical pieces a unique position and orientation in the solved state.**

Materials: SLS Nylon and Laser Cut Acrylic

Classification: SEQ-GRP (Twisty Puzzle)



20 Double Jigsaw Puzzle 5 alpha

Puzzle Goal: **Arrange the five two-layer puzzle pieces so that their bottom layer fills the 5x5 frame, and that there is no overlapping in the top layer.**

Materials: Acrylic

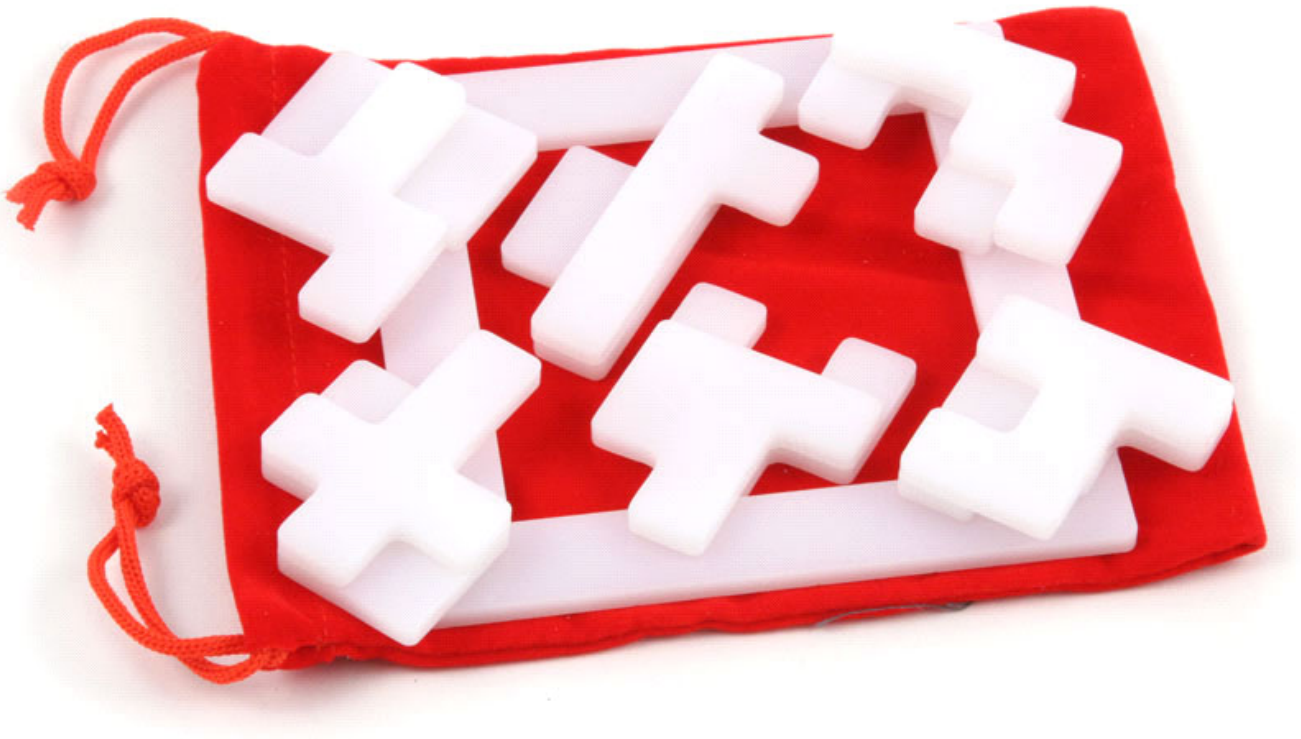
Classification: 1.2. 3D assembly / JIG-LAYR

21 Double Jigsaw Puzzle 6 alpha

Puzzle Goal: **Arrange the six two-layer puzzle pieces so that their bottom layer fills the 6x6 frame, and that there is no overlapping in the top layer.**

Materials: Acrylic

Classification: 1.2. 3D assembly / JIG-LAYR



22 Double Trouble

Puzzle Goal: **Intertwine the two elements until they are fully locked. Then disassemble the elements.**

Materials: Laser-cut wood

Classification: 3.6 Miscellaneous interlocking solid

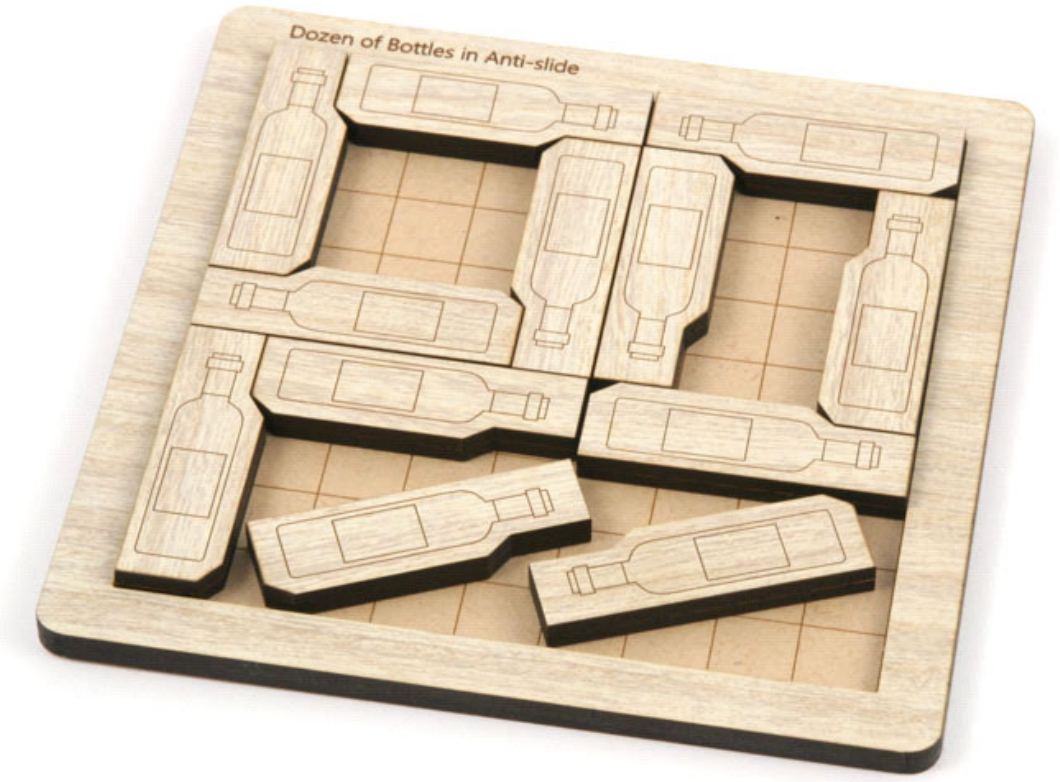
23

Dozen of Bottles

Puzzle Goal: **Pack the 12 bottle pieces in the frame in an anti-slide configuration.**

Materials: MDF

Classification: ASS-OTH



24

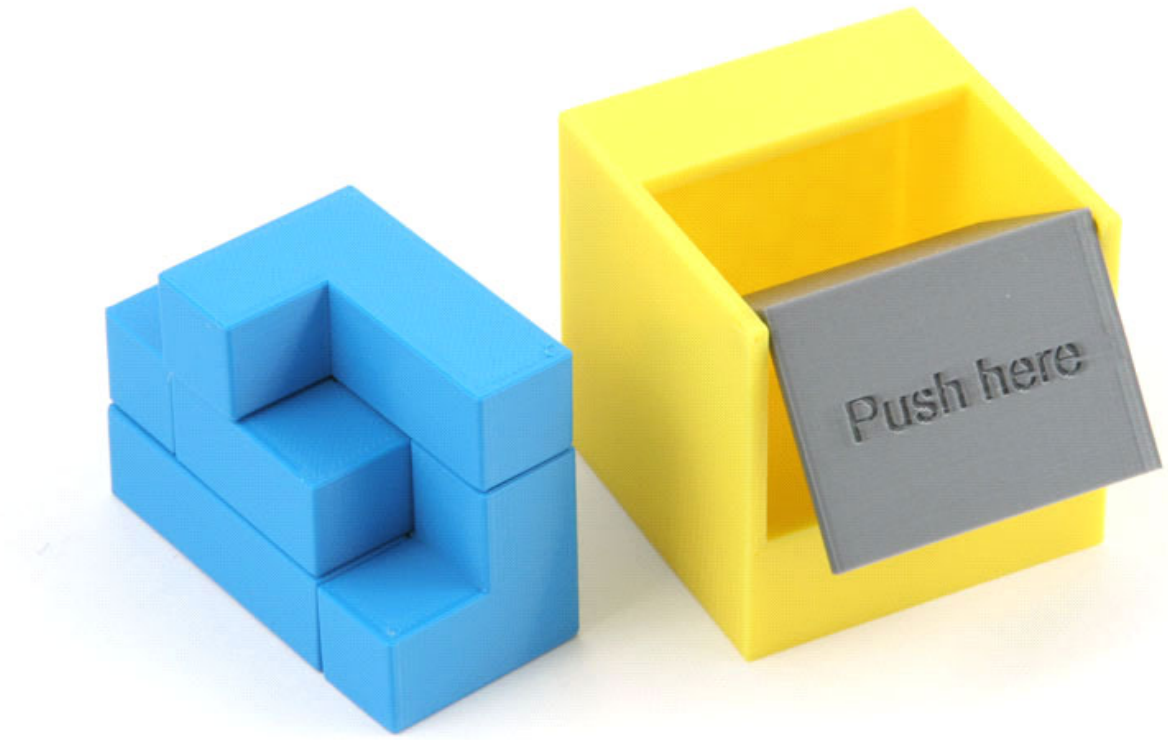
Dump Them 1

Puzzle Goal: **Pack the five polycubes in the box with the swinging lid shut.**

Materials: PLA

Classification: 3D assembly

Notes: The movement of the lid becomes restricted as the box is filled.



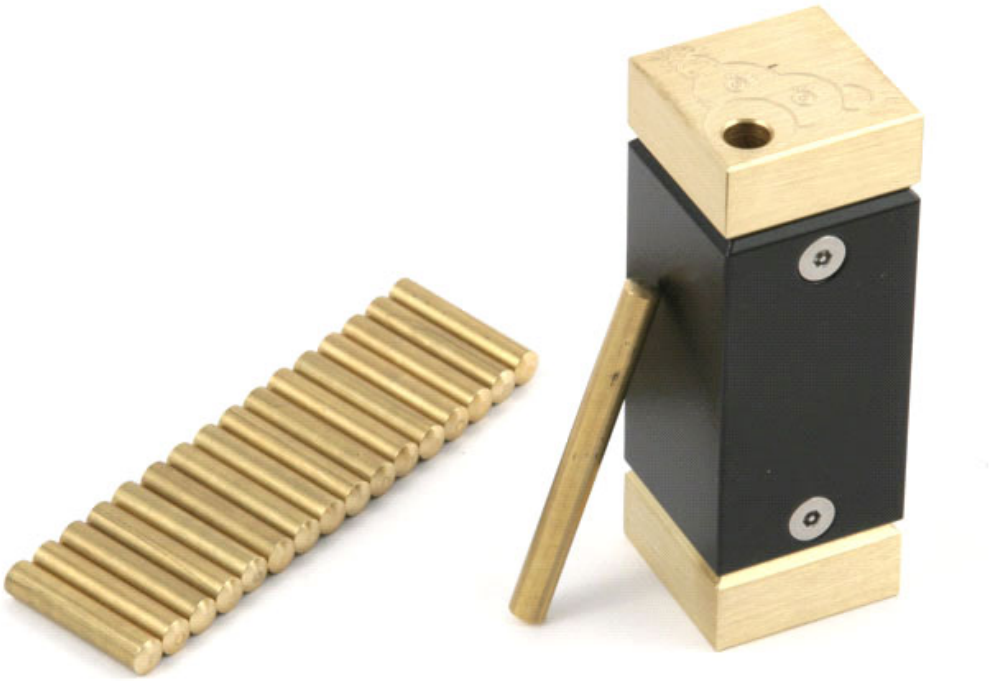
25

Feed the Monkey

Puzzle Goal: **Please help the monkey fully swallow 17 brass bananas.**

Materials: Brass, powder-coated aluminum

Classification: ASS-OTH



26

Flippe Ball

Puzzle Goal:

- **Open the ball.**
- **Understand how it works.**

Materials: PLA plastic, steel ball

Classification: [2.1] Take Apart, OPN-OTH Opening other objects

Notes: Give yourself sufficient space, or use a shallow plate to contain the movement.

27

4 PAC

Puzzle Goal: **Pack four identical pieces into the case.**

Materials: Wood (case, piece), Acrylic (lid)

Classification: 1.2 3D assembly

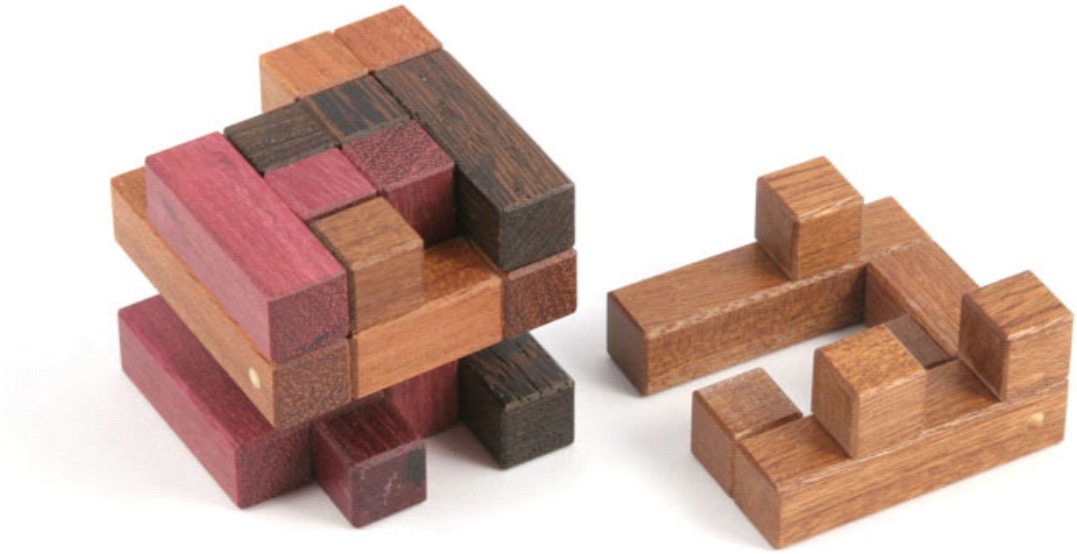
28

Geneva

Puzzle Goal: **Assemble the four pieces into a 4x4x4 cube (with holes).**

Materials: Wood

Classification: 3.2 Interlocking Solid



29

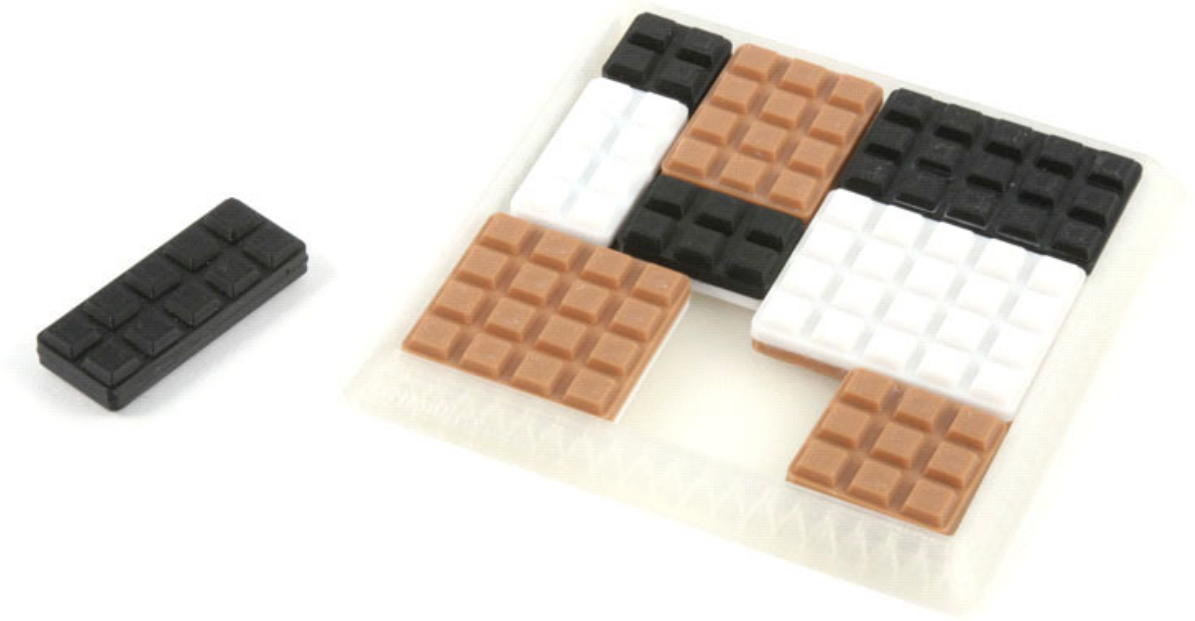
Gump's Chocolates

Puzzle Goal:

- **Put the two-sided pieces in the box so that same-color chocolates do not share an edge.**
- **Put the two-sided pieces in the box so that same-colored chocolates are connected.**

Materials: PLA

Classification: ASS-CART



30

Harun

Puzzle Goal: **Pack the six pairs into the box.**

Materials: Cherry, Bubingo and Maple

Classification: 3D packing

31

Heavy Oden

Puzzle Goal: **Disentangle the seven parts**

Materials: Steel nail

Classification: Disentanglement

32

HexTrios

Puzzle Goal: **Open all three boxes to reveal gems hidden inside.**

Materials: Maple, purpleheart, yellowheart, goncalo alves, metal

Classification: 2.1 Trick Opening

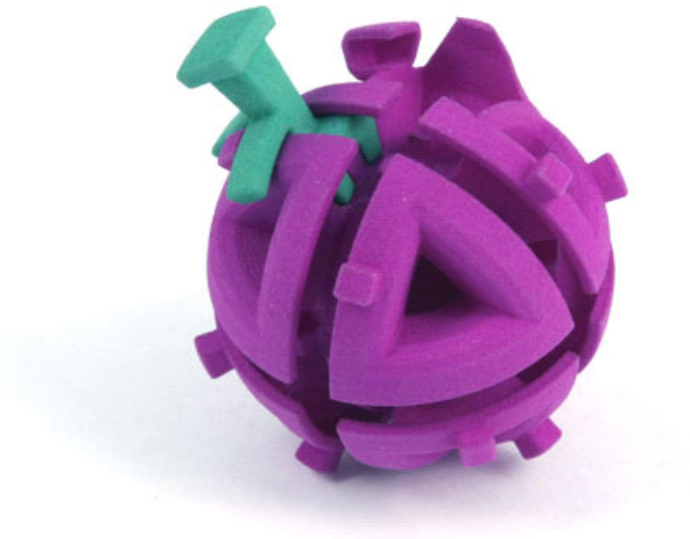
33

Holonomy Maze 1

Puzzle Goal: **Remove the green piece from the purple sphere.**

Materials: 3D printed (SLS) nylon plastic, dye

Classification: 5.5 Maze & route



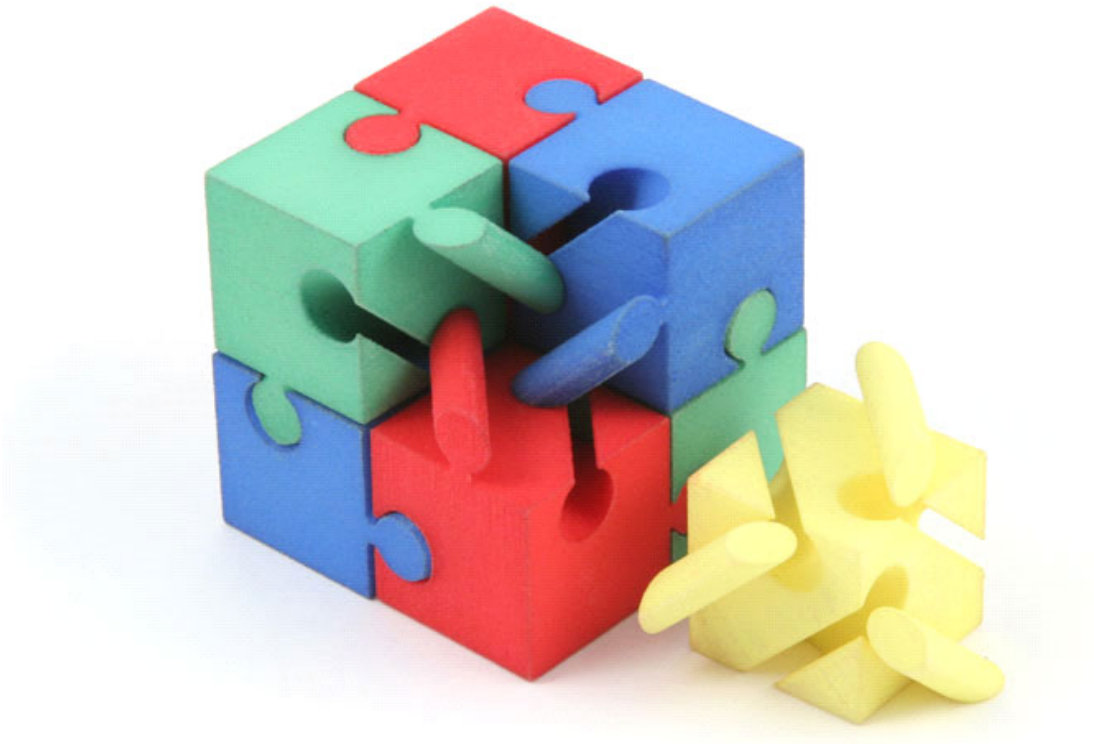
34 Jigsaw Cube [4-colors]

Puzzle Goal:

- **Is it possible to assemble all eight pieces into a cube?**
- **If you think it is impossible, think about why. Otherwise, think about how to do it.**

Materials: Nylon plastic

Classification: Possibly impossible ojbect



35

K3 Tiling Puzzle

Puzzle Goal: **Put all the pieces into the inner frame.**

Materials: Natural wood (maple, black walnut, padauk) and MDF

Classification: Put-Together

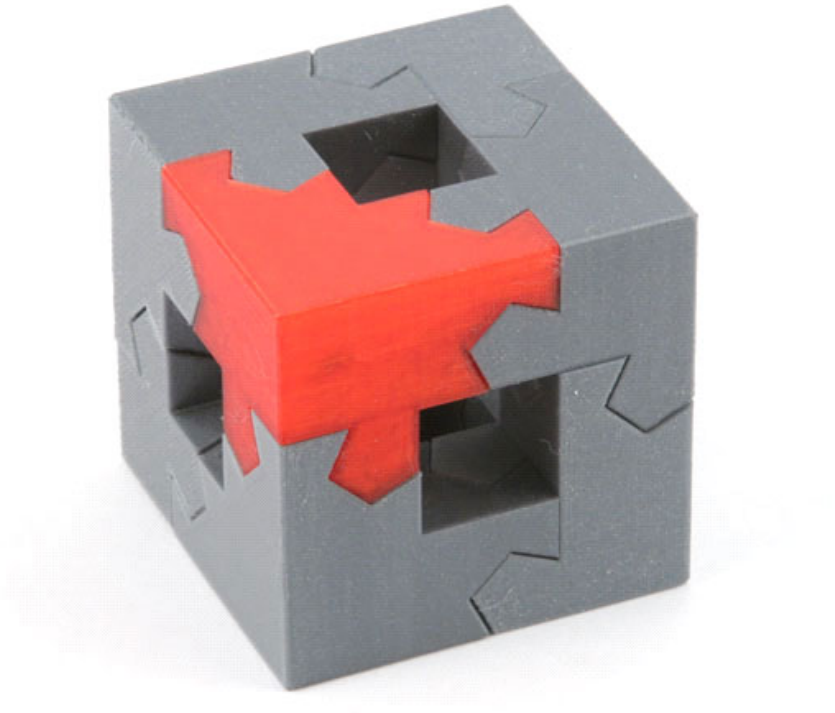
Notes: Is it possible to use these pieces for periodic tiling?

36 Kawai Tsugite Joint Puzzle

Puzzle Goal: **Assemble eight pieces to form a hollow cube.**

Materials: PETG

Classification: INT-POLY



37

Light Oden

Puzzle Goal: **Disentangle the four parts**

Materials: Steel nails

Classification: Disentanglement

38

Lutz

Puzzle Goal: **Put all four pentominos inside the frame so that they can slide out of the opening in the side of the frame.**

Materials: Various woods

Classification: 2D Packing

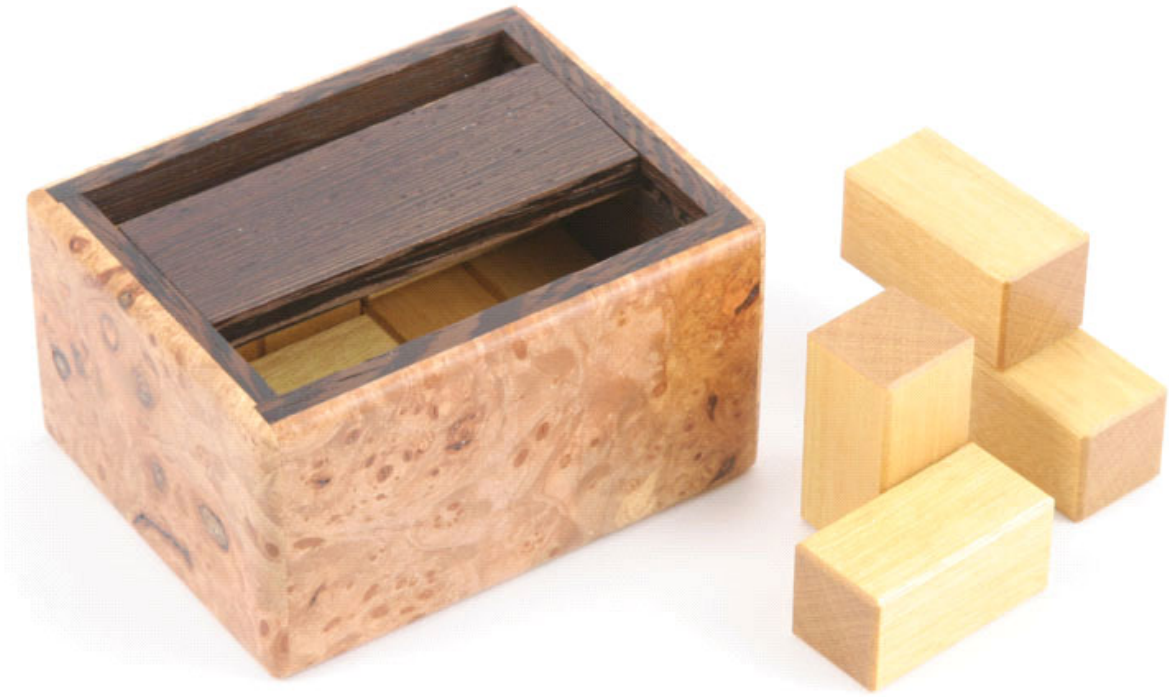
39

Midi

Puzzle Goal: **Pack the pieces into the box with the sliding lid panel.**

Materials: Wood

Classification: 1.2 3D assembly



40

Minii-Moment

Puzzle Goal: **Place all the pieces into the frame.**

Materials: Wood

Classification: 2D Assembly

41

Nail Quartet

Puzzle Goal: **Disentangle the four parts**

Materials: Steel nails

Classification: Disentanglement

42 Nips

Puzzle Goal: **Separate the two parts of the spinning top, and reveal the prize.**

Materials: Poplar and birch plywood

Classification: Take-apart

43

OsCube

Puzzle Goal: **Twist the faces so that all surfaces are retracted.**

Materials: Plastic

Classification: SEQ-GRP

Notes: Rotations will cause some surfaces to extend or retract.

44

The Pill

Puzzle Goal: **Find the flag and figure out the mechanisms, then put it back together.**

Materials: Aluminium, PLA plastic, steel spring and pin

Classification: INT-BOX

45

Pime

Puzzle Goal: **Move the five pieces in the inner maze until the central square can be completely removed.**

Materials: Poplar plywood

Classification: 5. Sequential Movement

46

Psi Quantum Entanglement

Puzzle Goal: **Restore each face to a single color, just like a Rubik's Cube.**

Materials: SLS Nylon and Laser-cut Acrylic

Classification: SEQ-GRP / 5.4 Twisty Puzzles

47

Quadro

Puzzle Goal: **Pack all pieces inside the box.**

Materials: Wenge, ash, sapelli, acrylic

Classification: Box Packing

48

Rakkako

Puzzle Goal: **Construct the 54-layer block containing 120 embedded cylinders.**

Materials: Oak or maple wood

Classification: 3D Geometric Object

49

Rakkako Cube

Puzzle Goal: **Construct the 20-layer cube containing 12 embedded stair-cones.**

Materials: Oak wood

Classification: 3D Geometric Object

50

ResQ

Puzzle Goal:

- **Free the visitor from his psychic prison**
- **Unlock the vortex**
- **Retrieve the spaceship without using rotations (to avoid making the vortex even more unstable)**
- **Navigate the vortex and retrieve the spaceship parts:**
  - **Thick and thin antenna assemblies**
  - **Silver fuel disk**
  - **Gold reactor orb**
  - **Six-orb navigation AI module**

Materials: Woods: koa, canxan, catalox, bloodwood, chakte viga, etc.

Classification: Take-Apart

51 Safe Safari

Puzzle Goal: **Complete the placement of pieces so that no animal can "attack" any other (based of various chess move-like abilities).**

Materials: Plastic board and pieces and paper booklet

Classification: 1.3 Miscellaneous put-together

Notes: Game cards present multiple challenges.

52

Saturn

Puzzle Goal: **Disassemble and reassemble the planet**

Materials: Plastic

Classification: 3.6 Misc Interlocking Solid

53 Sequential Discovery Cubed Box

Puzzle Goal: **Open the box**

Materials: Wood, metal

Classification: Sequential Discovery (2.1 Trick-opening)

54

Shackles

Puzzle Goal: **Remove the metal ring.**

Materials: Metal, cloth

Classification: Disentanglement

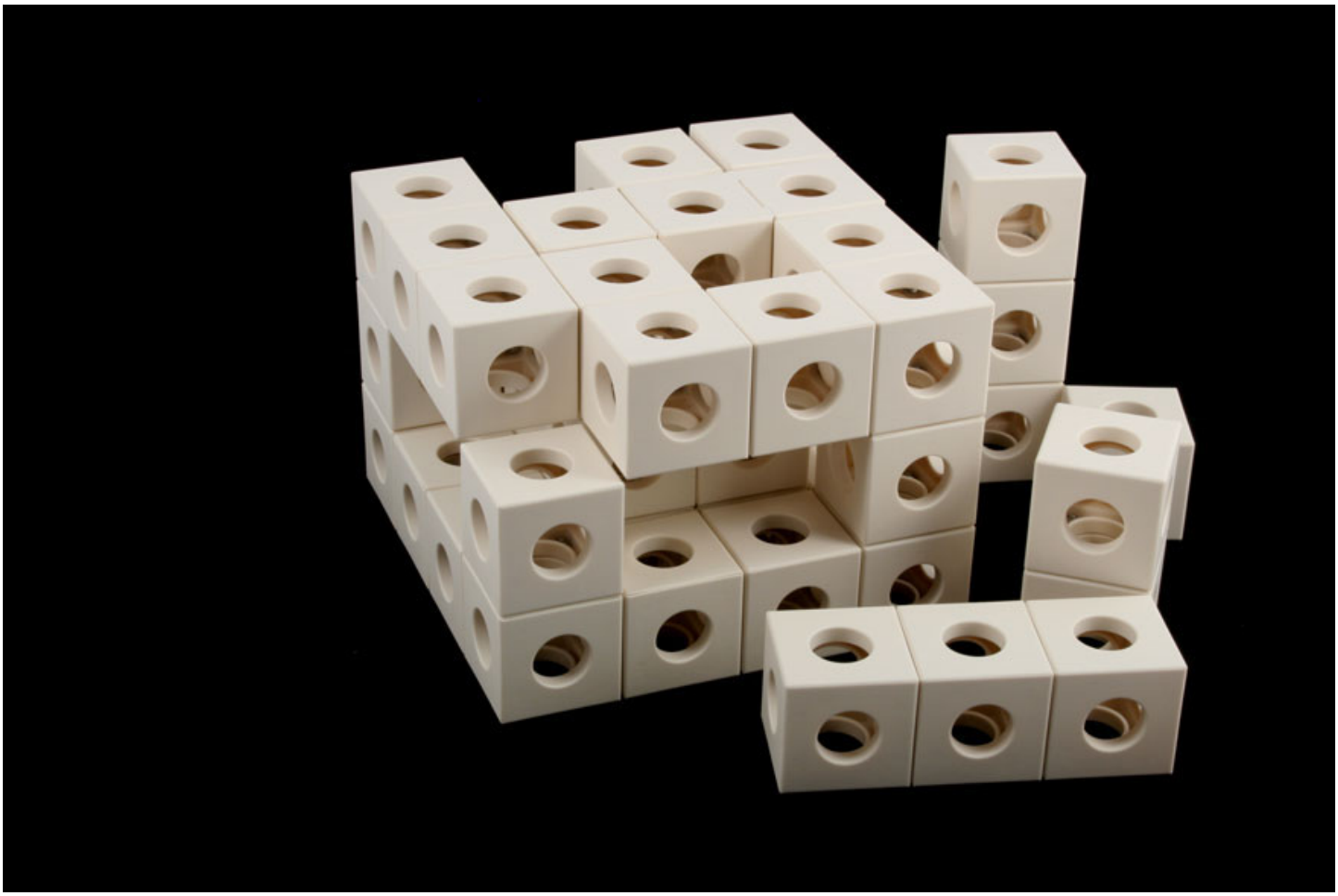
55 Shape Changer

Puzzle Goal: **Assemble the pieces into a 4x4x3 block.**

Materials: Plastic Abercubes, metal screws

Classification: 3.2 Geometric Object

Notes: Some pieces have hinged components allowing the piece to change shape.



56

Shardinaires-9

Puzzle Goal: **Arrange 9 pieces to form each of the 12 pentominoes and each of the 5 tetrominoes.**

Materials: Laser-cut acrylic pieces

Classification: 1.1 2D Put-Together

Notes: Many other challenges are possible.

57

Shrinking Soma

Puzzle Goal: **Fill and support the top layer of the box with the seven parts of Soma Cube in an antisliding way.**

Materials: American walnut and maple

Classification: 3D Assembly

58

Six Circles

Puzzle Goal: **Disassemble and reassemble the circles.**

Materials: Plastic

Classification: 3..6 Misc. Interlocking Solid

59

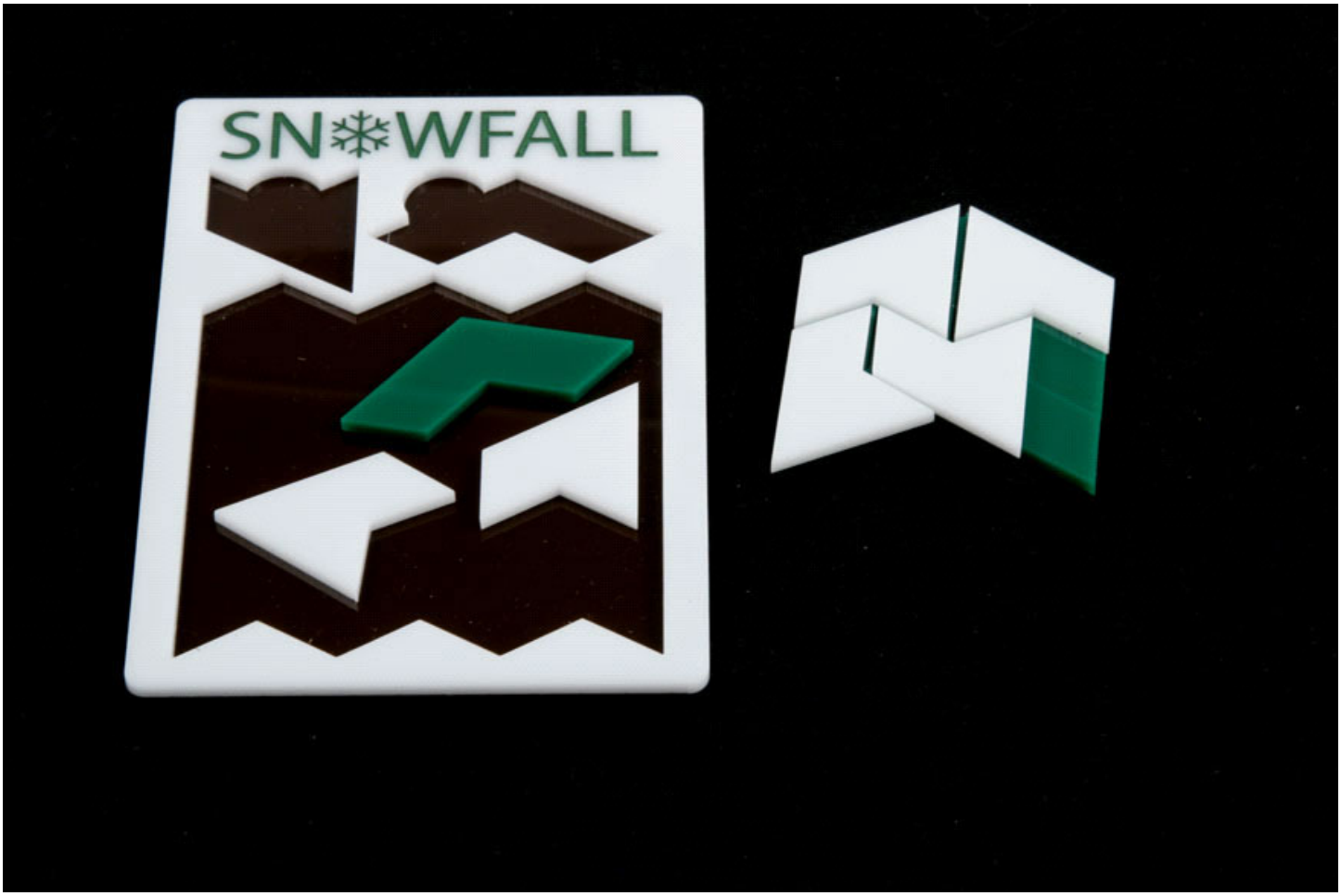
Snowfall

Puzzle Goal:

- **Completely cover-up the green pieces with the white pieces.**
- **Put all the pieces into the main tray without overlapping.**

Materials: Acrylic

Classification: 1.1 2D Assembly



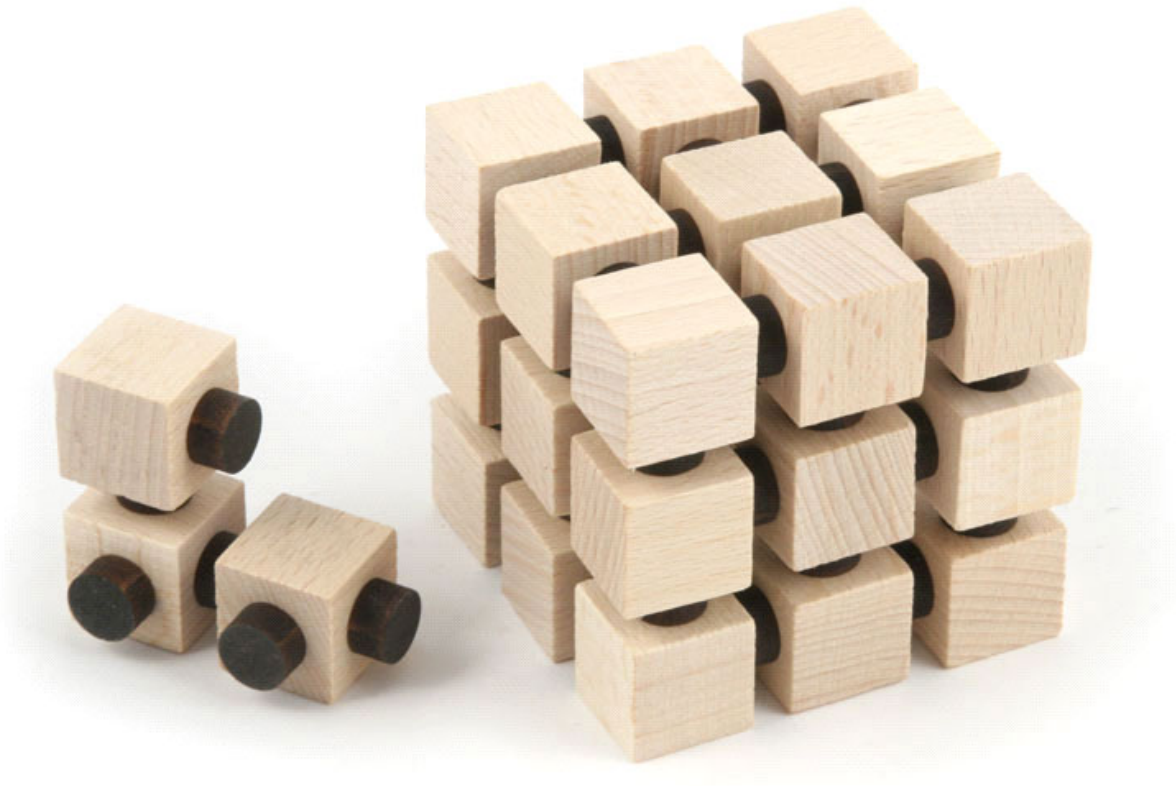
60

Social Distance Soma Cube

Puzzle Goal: **Assemble the pieces to form a cube.**

Materials: Wood, MDF

Classification: 3D Put-Together



61

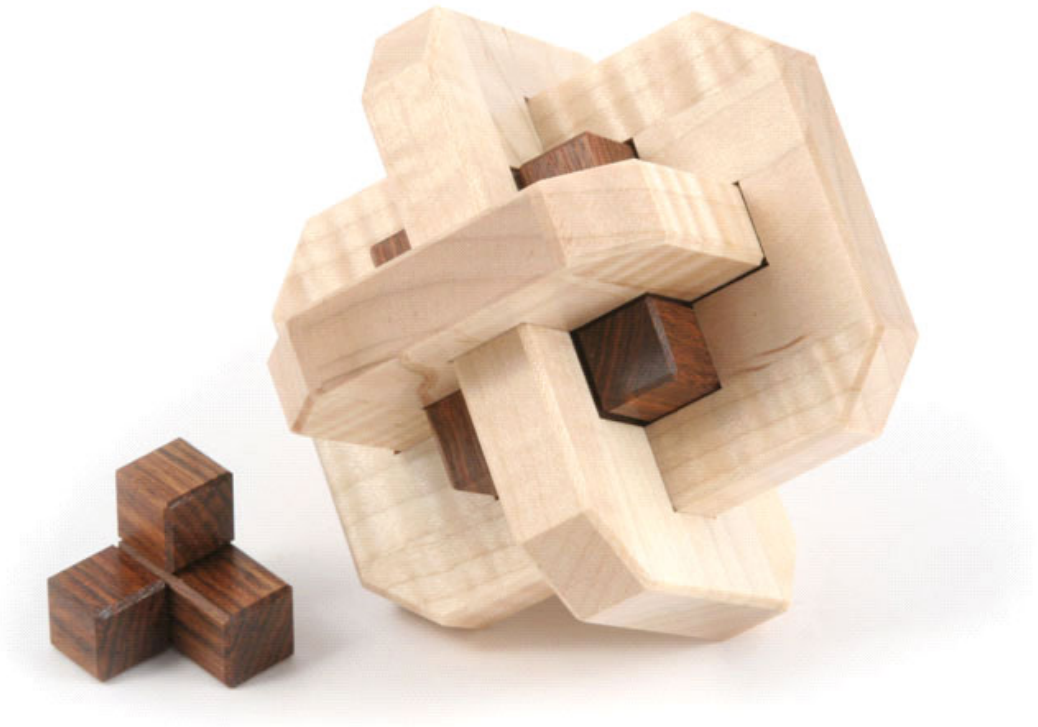
Soma Burr

Puzzle Goal: **Fit the Soma pieces inside the traditional three board knot burr.**

Materials: Wood (figured maple and chechen)

Classification: 3.4 Burr

Notes: One Soma piece is fixed to one of the burr boards.



62

Squary Pack No.10

Puzzle Goal: **Pack all pieces inside the box.**

Materials: Wenge, ash, sapelli, acrylic

Classification: Box Packing

63 Static Soma

Puzzle Goal: **Using the standard Soma pieces construct an anti-slide structure (all directions) inside a 5x5x5 box.**

Materials: Exotic woods and acrylic

Classification: 1.2 3D Assembly

Notes: This is the largest volume of space that Soma Cube pieces can occupy with anti-slide properties.

64 Trapezoid Enthusiast

Puzzle Goal: **Place all the pieces into the frame.**

Materials: Wood

Classification: 1.1 2D Assembly

65

Turn Back

Puzzle Goal:

- **Slide the cubes in order to make all black faces upward.**
- **Slide the cubes so that the upward face of the cubes match the color of the base.**

Materials: Plastic

Classification: 5.6. Misc. Sequential Movement

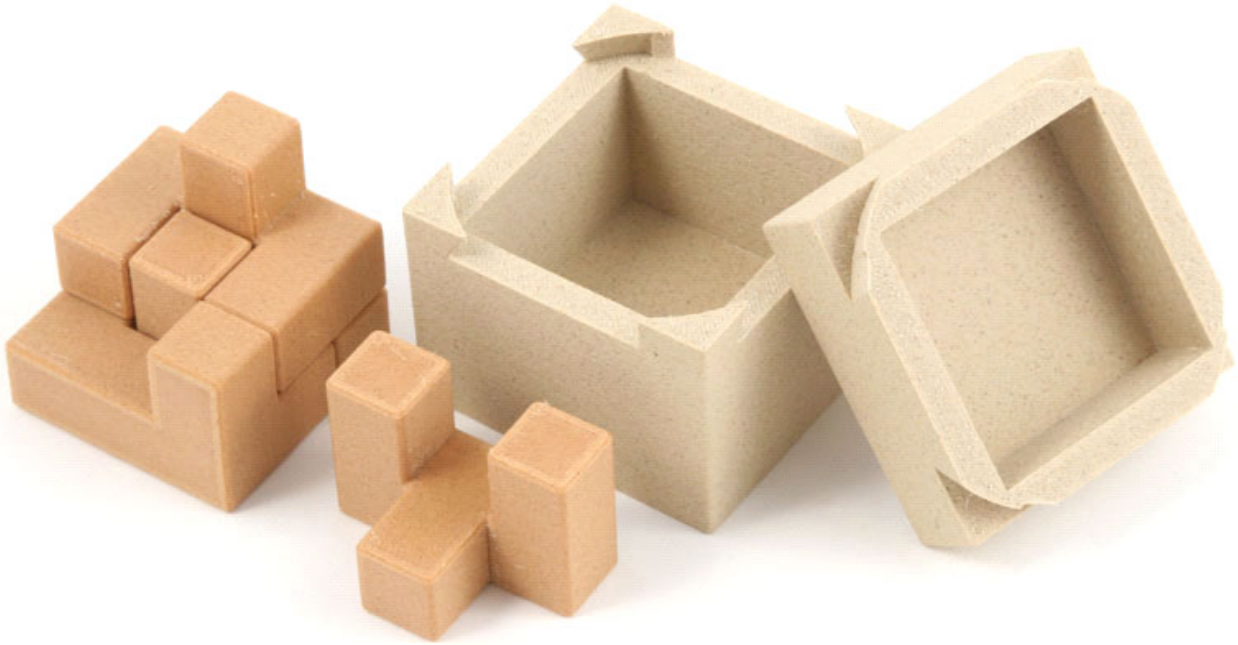
66

Turn Them In

Puzzle Goal: **Pack the four pieces in the box with the lid shut.**

Materials: Wood PLA

Classification: 1.2 3D Assembly



67

Turtle Trip

Puzzle Goal: **Help the turtle find his pants and join the Pond Party.**

Materials: PLA Plastic, metal, electronics

Classification: Sequential Discovery

Notes: The use of electronics is mostly limited to emphasizing progress with light and motion, and is not critical to the actual puzzle content.

68

Twin Tetrahedra

Puzzle Goal:

- **Assemble two tetrahedrons from the 12 pieces**
- **Combine two tetrahedron**

Materials: Wood: hinoki

Classification: 1.2 3D Put-Together

69 Twist-Cubes 16P [Checker & Rainbow]

Puzzle Goal:

- **Make a 4x4x1 block**
- **Make six different checkered patterns: each with white and just one of the other colors: red, purple, yellow, orange, blue, and green (in rough order of difficulty)**
- **Make a rainbow (diagonals are ROYGBPW in order). What color is the back?**

Materials: Wood: tochi

Classification: 1.3 Misc. Put-Together

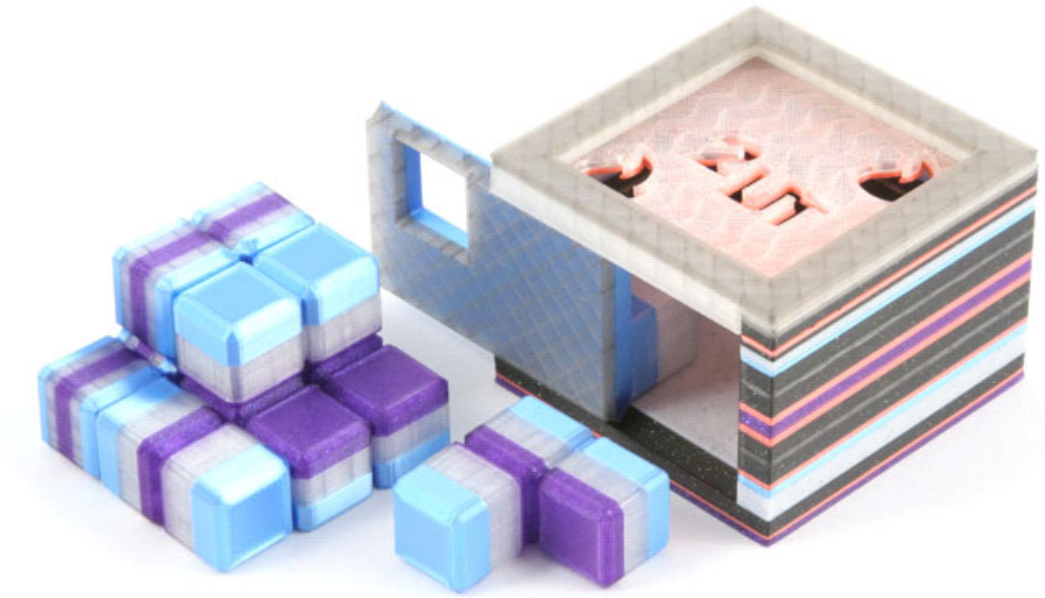
70 2LIT

Puzzle Goal: **Put the five pieces into the box and completely close the door.**

Materials: 3D Printed PLA

Classification: 1.2. 3D Assembly

Notes: No piece should be able to fall out or protrude through the hole in the door.



71 UFO

Puzzle Goal: **Remove the ball and then restore it**

Materials: Plastic, metal

Classification: 2.1. Trick opening box

72 What Symmetry?

Puzzle Goal: **Figure out the symmetry property the object.**

Materials: Plastic

Classification: PAT-OTH

73 Yoga Blocks

Puzzle Goal: **Assemble the seven pieces to a 6x6 square.**

Additional challenges:

- **4x4 square (3 pieces)**
- **5x5 square (5 pieces)**
- **3x5 rectangle (3 pieces)**
- **4x5 rectangle (4 pieces)**
- **5x6 rectangle (6 pieces)**
- **4x9 rectangle (7 pieces)**

Materials: Wood, metal

Classification: 1.3. Misc. Put-together

Notes: Bridges must cross other pieces, not themselves.

74

ZenBreak

Puzzle Goal:

- **Move the red piece from the bottom to the top double square position.**
- **Move the copper colored T-piece from its position.**

Materials: Epoxy resin & acrylic for case

Classification: 5.3. Sliding Pieces

75 Ziggurat

Puzzle Goal: **Fully disassemble the tower of pieces, then reassemble them. You may use any number of pieces, but six is a good starting challenge.**

Materials: 3D Printed Plastic

Classification: 3.4. Burr Puzzle