



Structure of a hydroelectric power plant

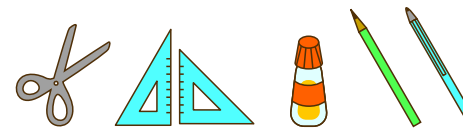
Dam type

Hydroelectric power generation is a power generation system in which the gravitational force of falling water reserved by a dam revolves the hydraulic turbine in the generator. Flowing water has potential energy, kinetic energy and pressure energy, and these energies of flowing water is called hydraulic power. Hydroelectric power generation is roughly divided into the "general hydroelectric power" and "pumped hydroelectric power" types. The general hydroelectric power means power generated by using the water in rivers or reservoirs. The pumped hydroelectric power is generated by pumping up water in a lower level to the upper reservoir during nights when power consumption is small and dropping the water in the upper reservoir down to the lower lake during daytime when power consumption is large. The structures of power plants include the "dam type", "waterway type" and "dam and waterway type". In the dam type, water is reserved by the upstream dam and dropped down to generate power through use of gravitational force.

Assembly tip

- Writing the number of each section on its back side before cutting out the sections is highly recommended. (* This way, you can be sure which section is which even after cutting out the sections.)
- Fold and crease mountain folds and valley folds before applying glue.
- Take your time to cut out each piece carefully.
- Trace along the folds with a ruler and an exhausted pen (no ink) to get a sharper, easier fold.
- When applying glue to large areas, take care to prevent warping of paper that may be caused by over-application of glue. Apply small amounts of glue around the peripheral of the piece or use dual-sided tape to minimize warping.

Necessary utensils



scissors, set square, glue, pencil, used ballpoint pen

Caution

- Please read the Assembly Instructions carefully, and assemble in order as shown on the pattern sheets.
- This papercraft involves using glue, scissors, and other utensils and materials that may be dangerous to young children. Please work somewhere out of reach of young children.

Assembly Instructions

Seven A4 sheets (No. 1 to No. 7)

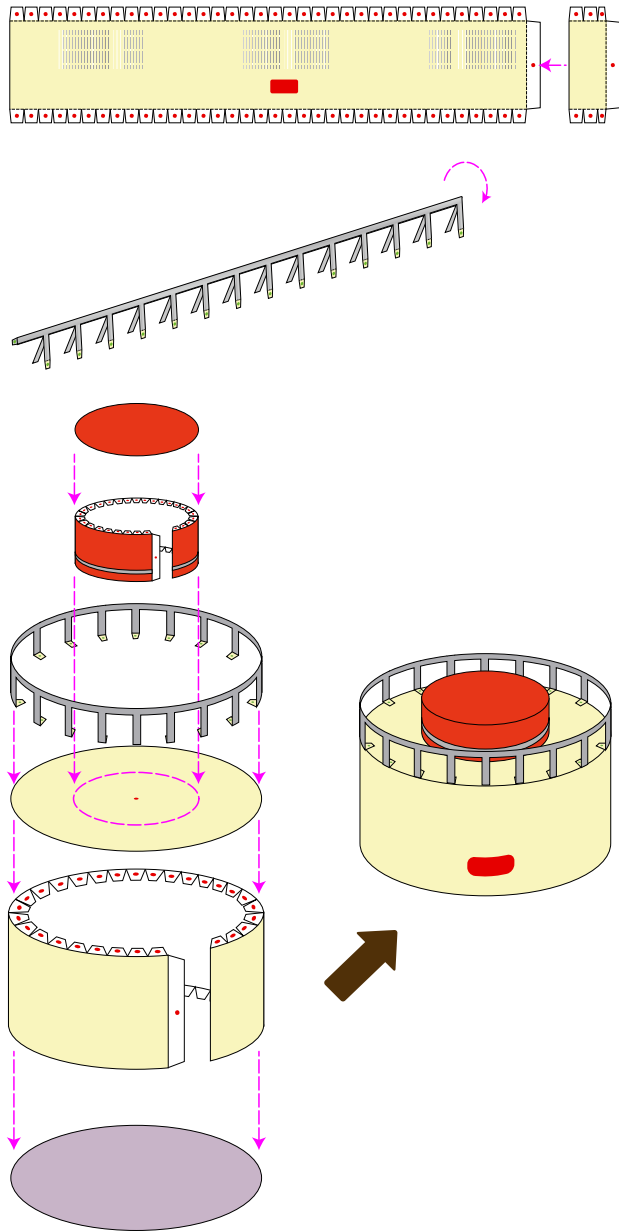
Notation Key

	-----	Mountain fold (dotted line)
	-----	Valley fold (dashed and dotted line)
	—————	Scissors line (solid line)
	-----	Guidelines (dotted lines) Align these guidelines when gluing pieces together.
	→	Arrow indicates position for gluing or insertion.
	✂	Cut out
	●	Glue spot (Red dot)
	●	Glue reverse side (Green dot)

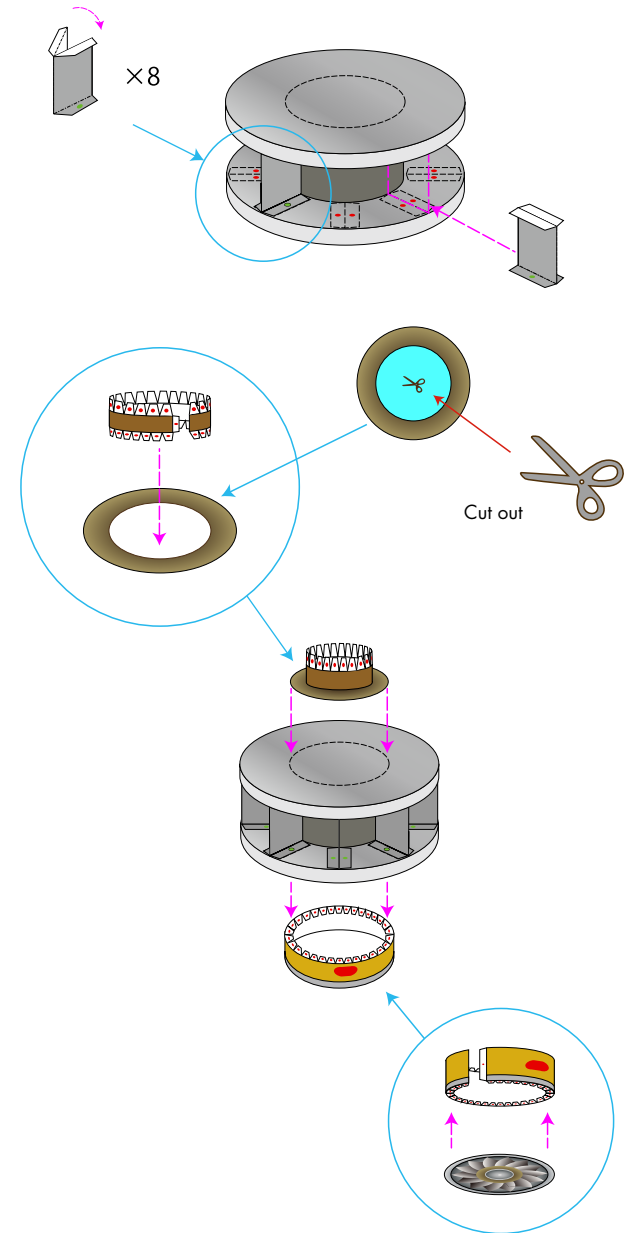
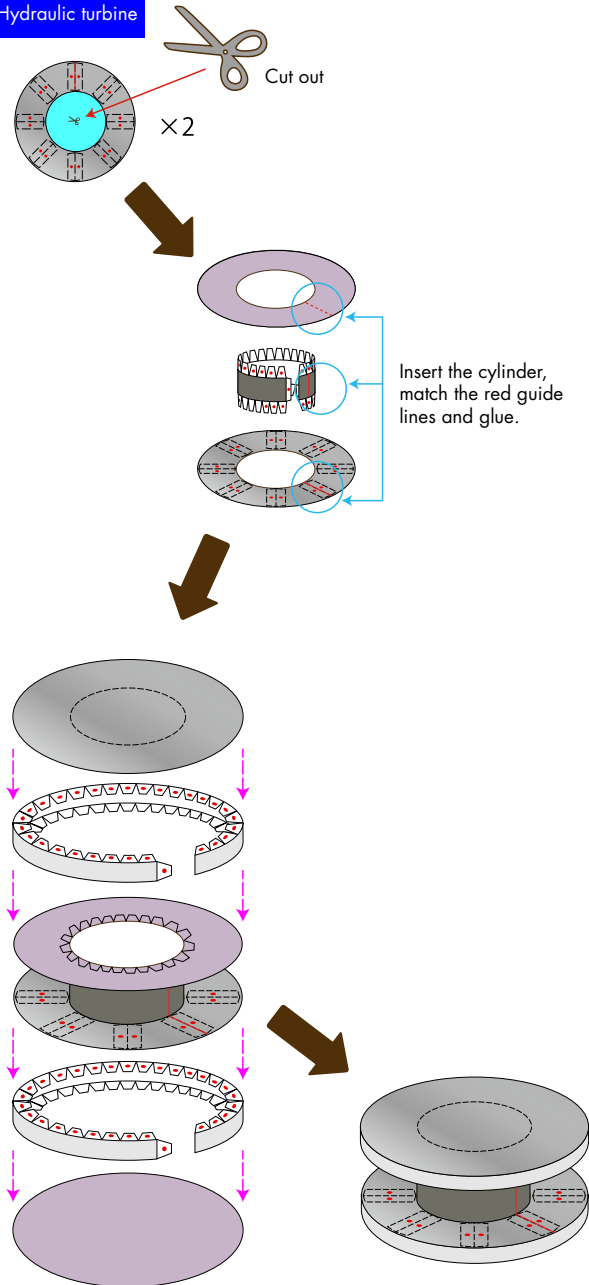
* The following are used in the assembly instructions.

Indicates reverse side of paper.

Power generator



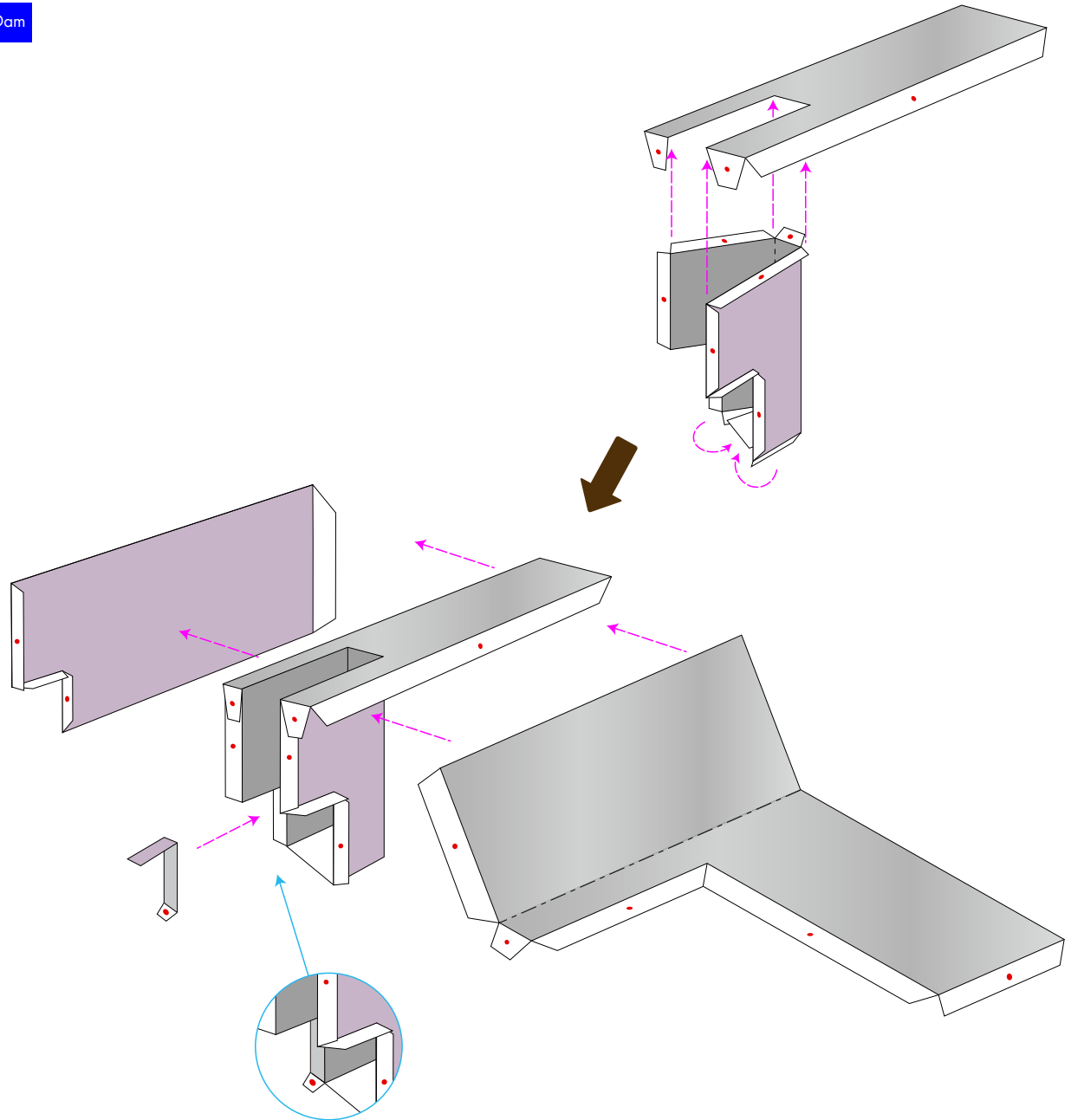
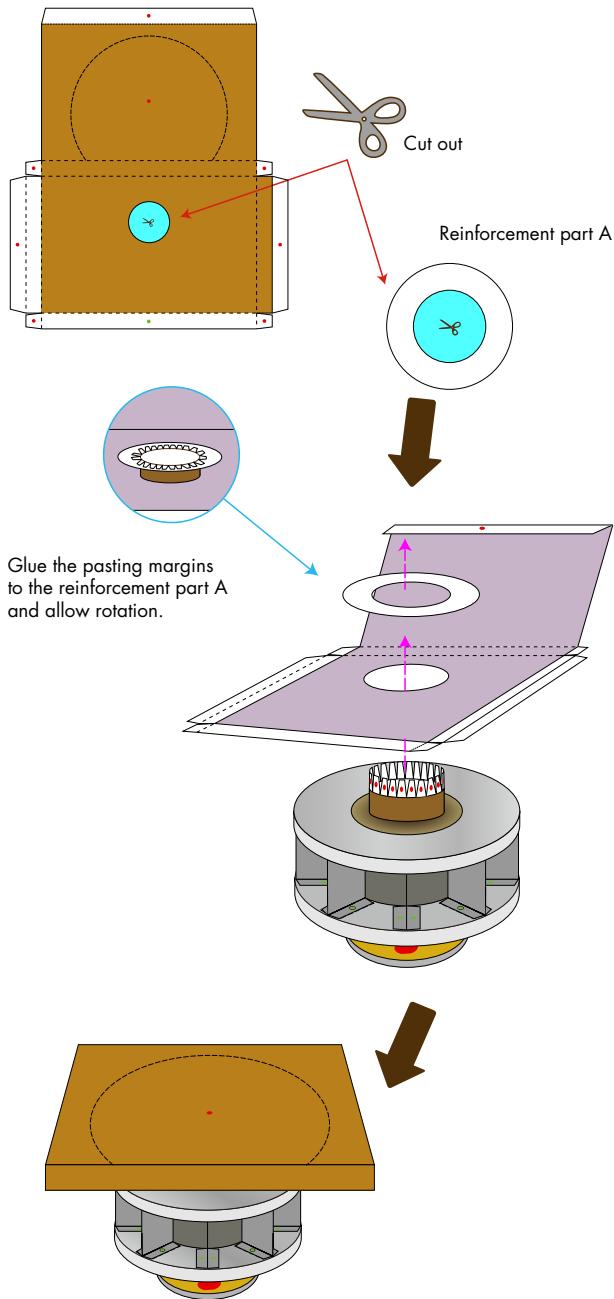
Hydraulic turbine



Generator basement

Hydraulic turbine

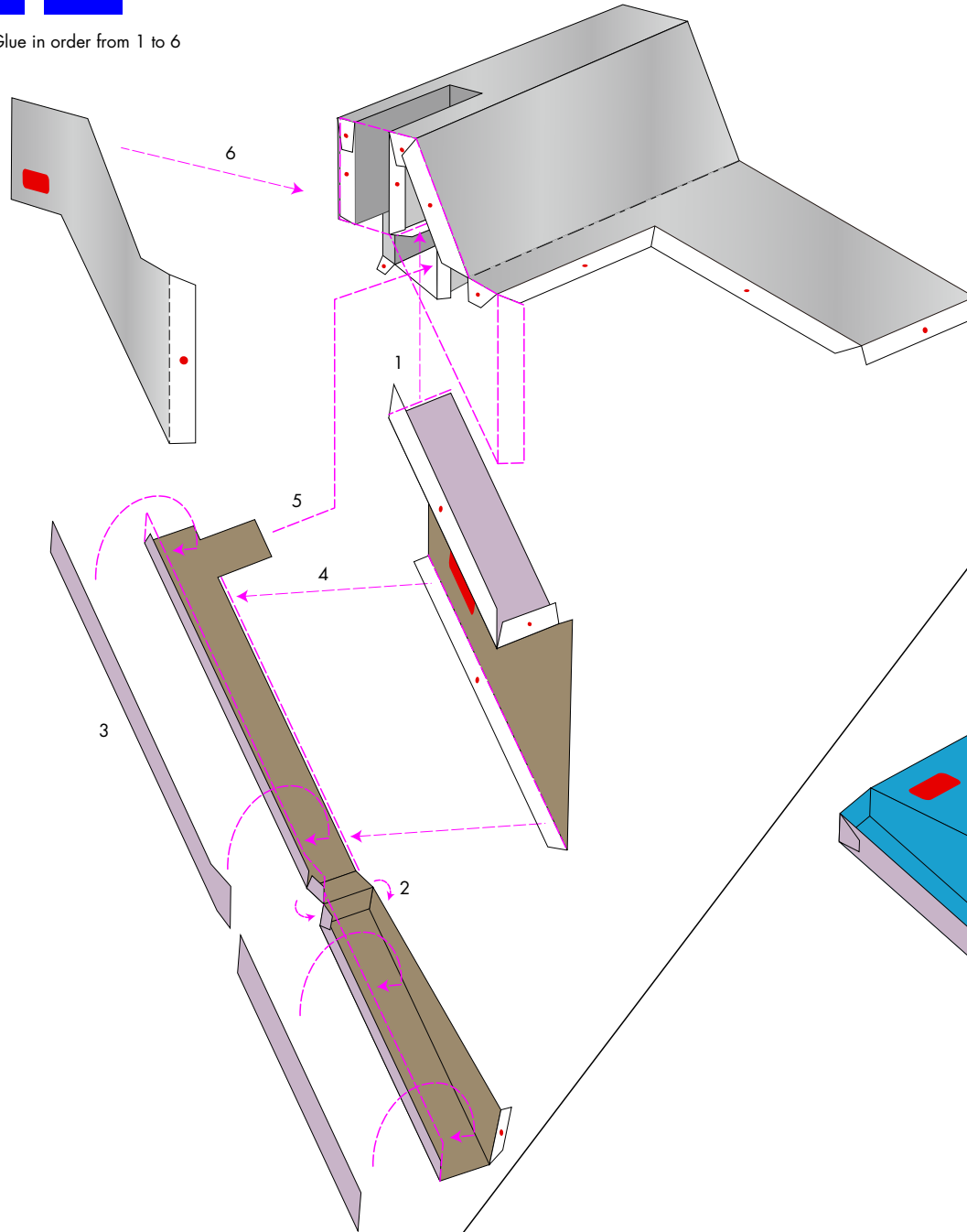
Dam



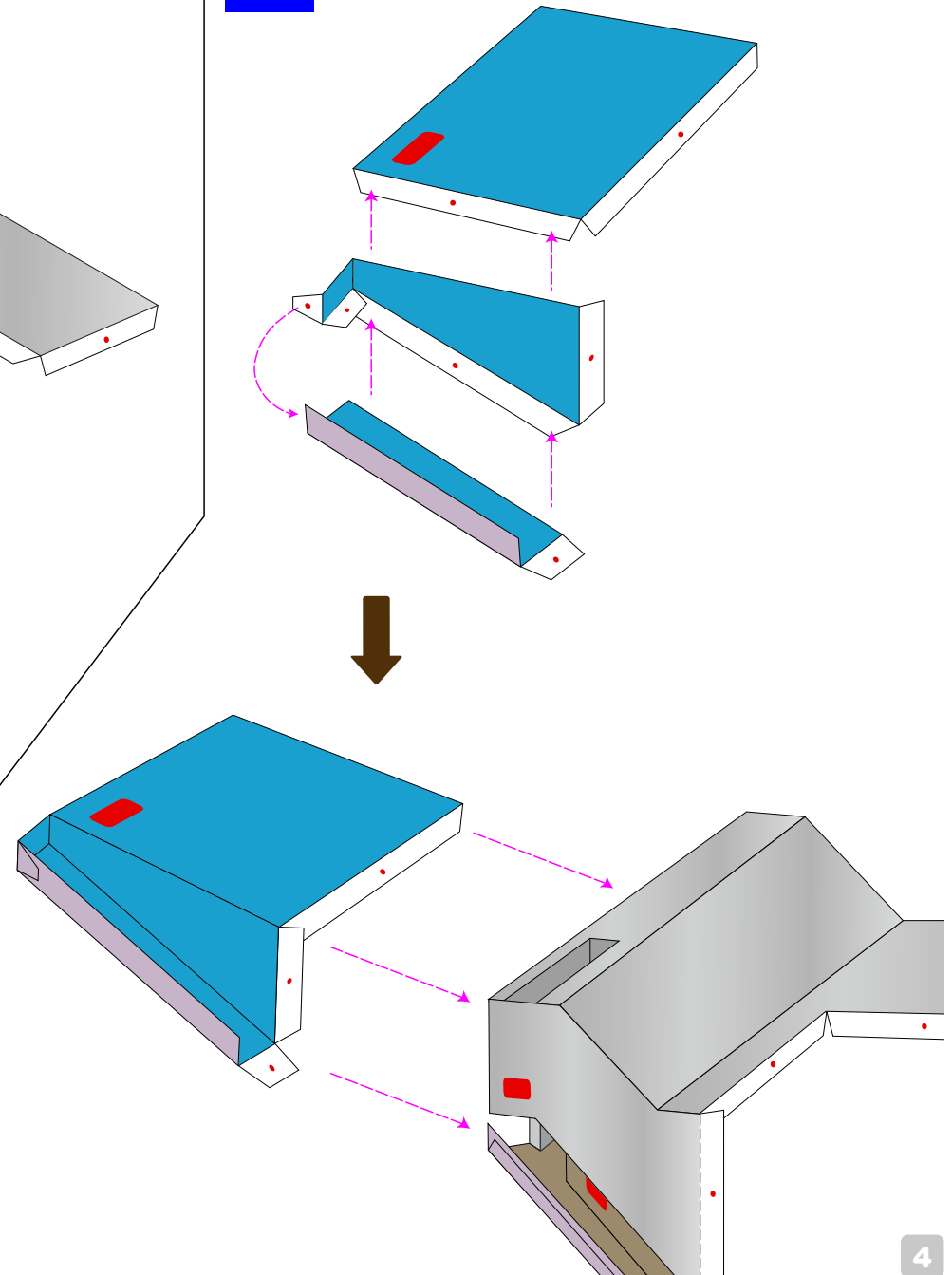
Dam

Penstock

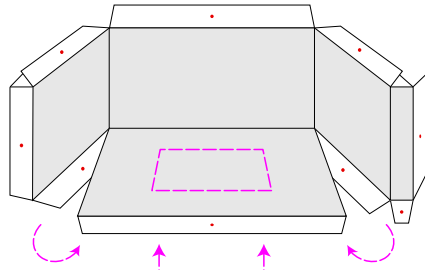
* Glue in order from 1 to 6



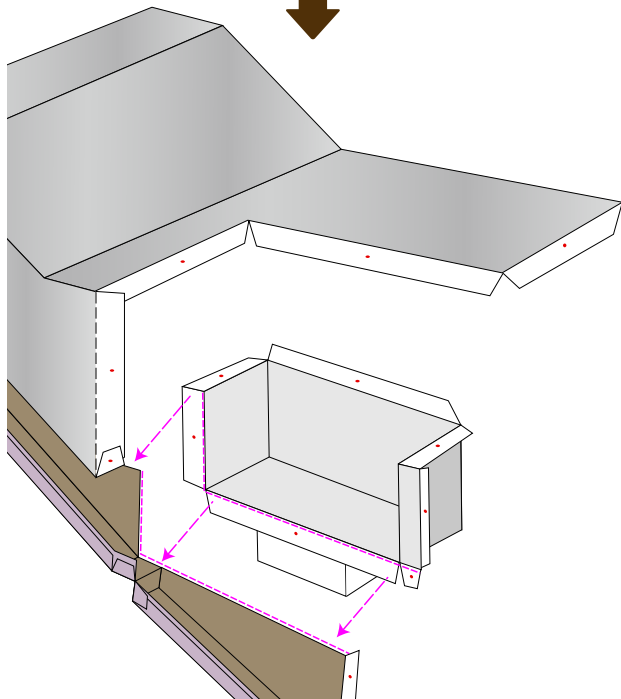
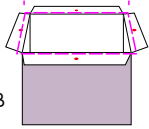
Dam lake



Electric power plant (downside)



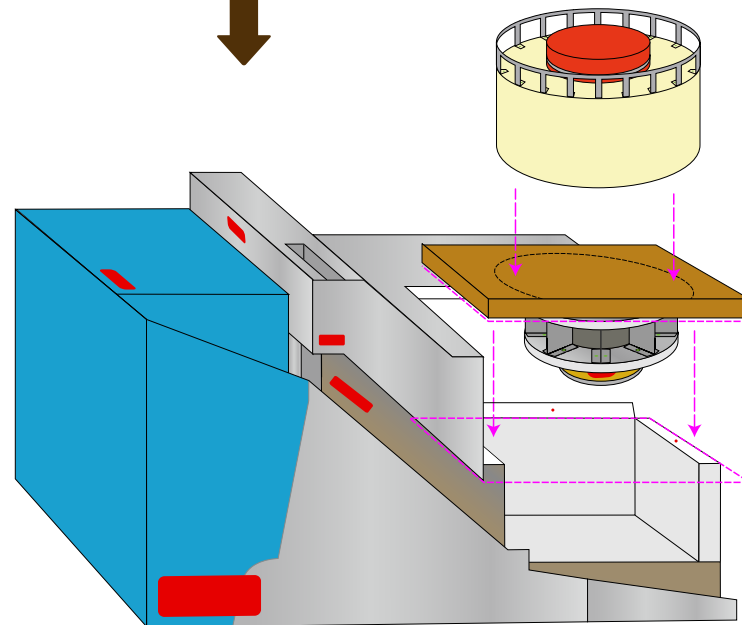
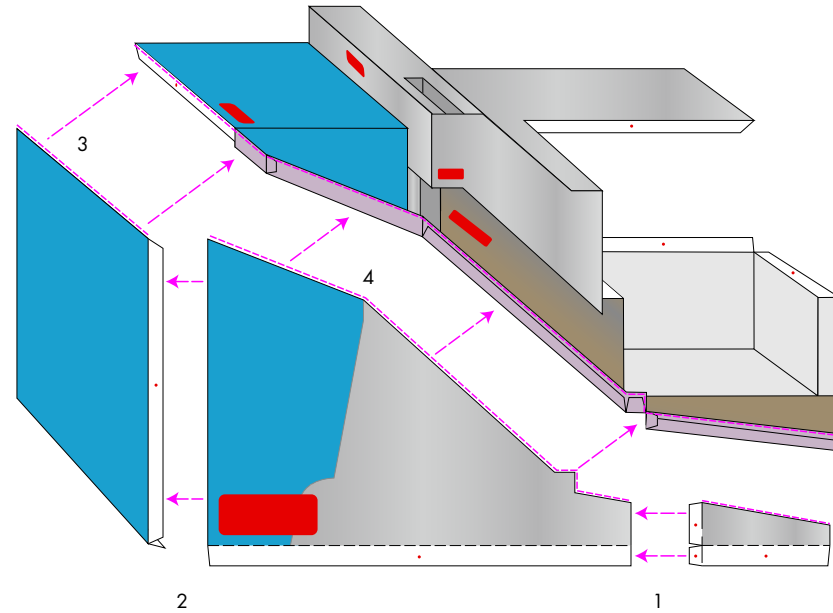
Reinforcement part B



Side view 1

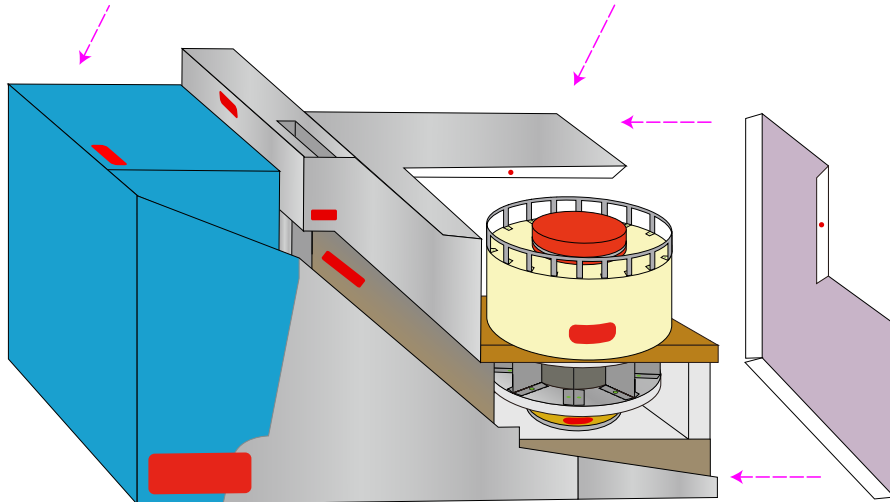
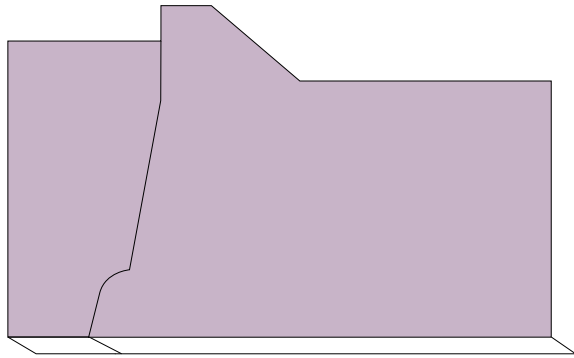
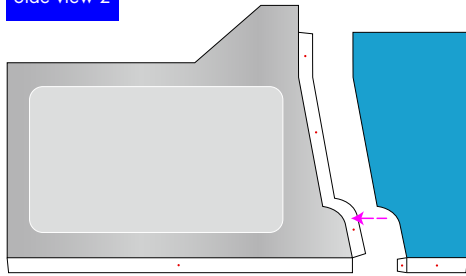
Front view

* Glue in order from 1 to 4

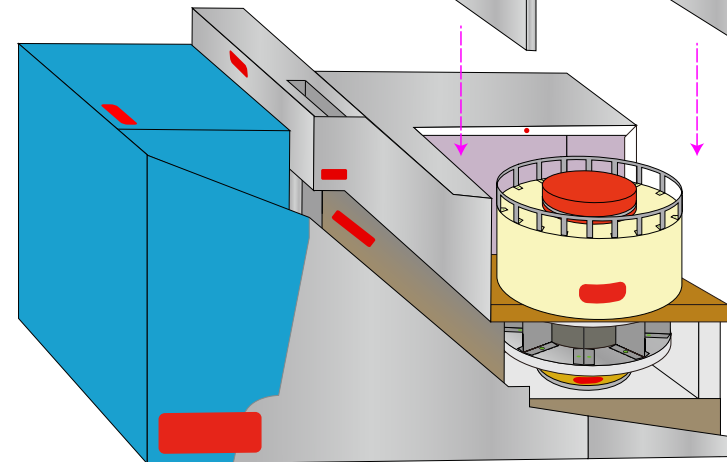
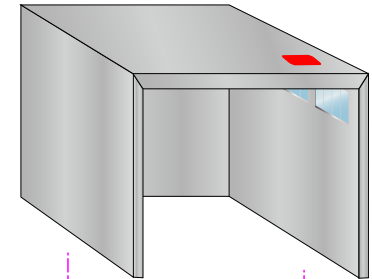
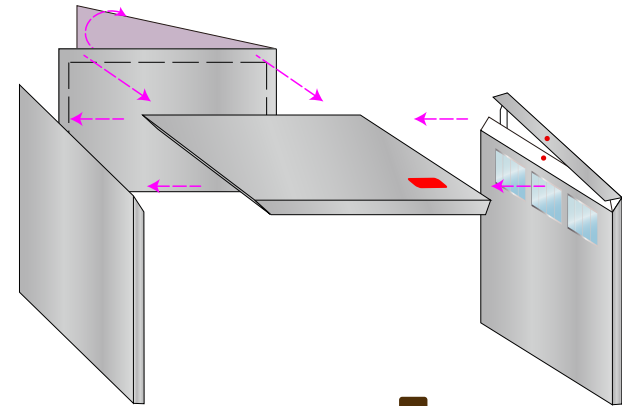


Rear view

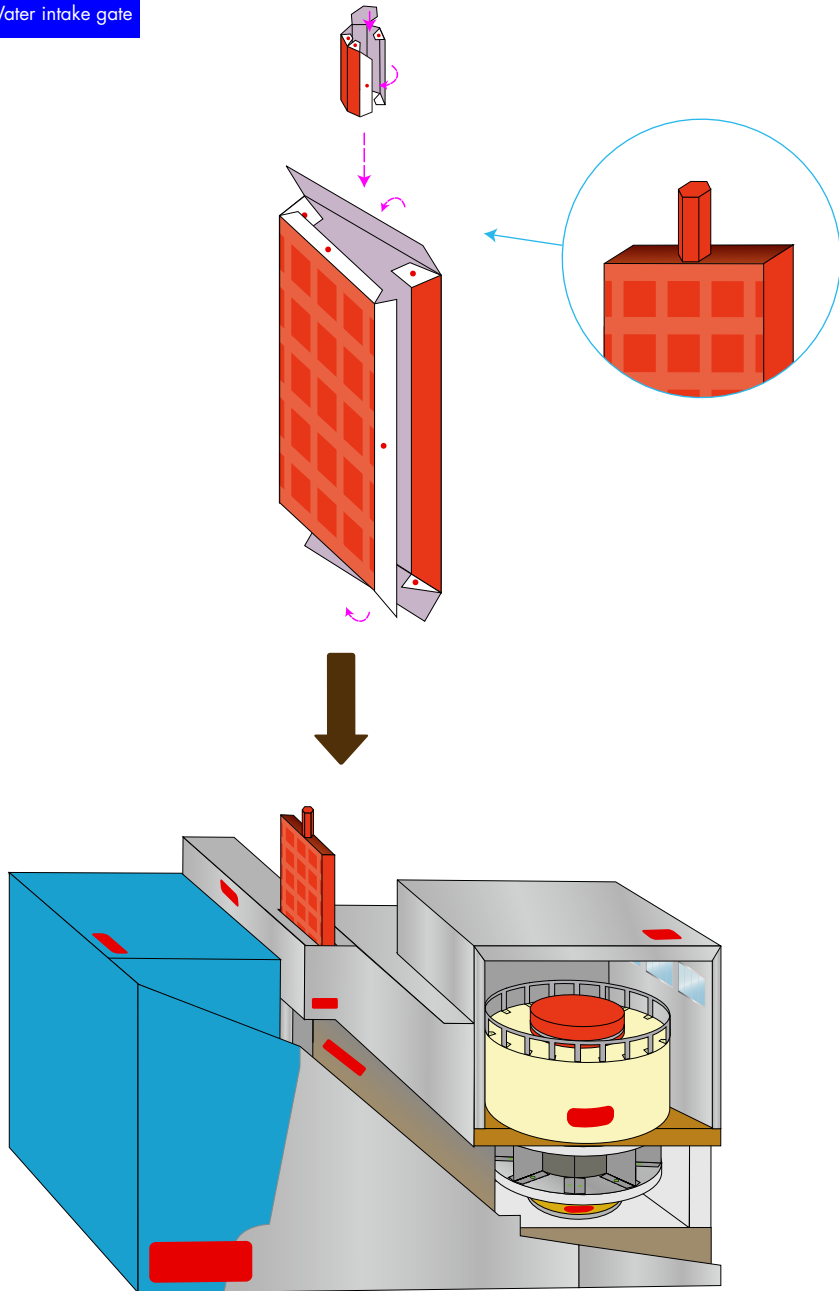
Side view 2



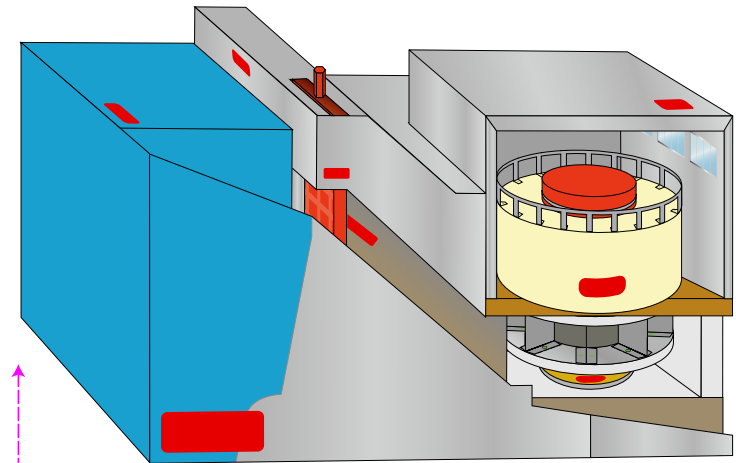
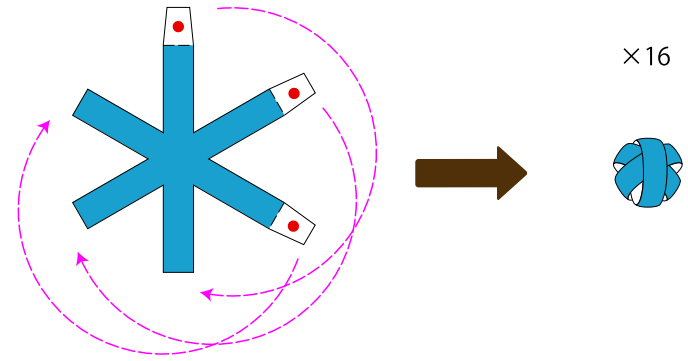
Electric power plant (upside)



Water intake gate



Water ball



Bottom

