

## SEEC2021 material list (Akira YO)

	NO	item	quantity	URL for reference	remarks
speaker: Akira YO	1	A3, copy paper	1		After printing the IKAROS sails on both sides in advance, cut them and use a compass cutter to make a 1 cm diameter circular hole in the center. FILE: IKAROS_development_view_back.pdf , IKAROS_development_table.pdf
	2	cable clips with adhesive tape	4	<a href="https://www.amazon.co.jp/dp/B086W9H61C/ref=sspa_dk_detail_7?pd_rd_i=B086W9G8YQ&amp;pd_rd_w=gYYJy&amp;pf_r">https://www.amazon.co.jp/dp/B086W9H61C/ref=sspa_dk_detail_7?pd_rd_i=B086W9G8YQ&amp;pd_rd_w=gYYJy&amp;pf_r</a>	
	3	bobbin for sewing machine (11.5mm diameter)	2	<a href="https://www.aliexpress.com/i/32803098552.html">https://www.aliexpress.com/i/32803098552.html</a>	Any other bobbin with an inner diameter of 6.2 mm or more can be used.
	4	craft paper (work paper)	1		A 1 cm square with a 5 mm dotted line is preferable. Make a disk of $3\sqrt{2}$ cm diameter and drill a circular hole of 1 cm diameter in the center.
	5	drinking straw (not bendable, but straight )	1		with a diameter of 6 mm or less
	6	round bar with a diameter of 6 mm or less and a length of about 20 cm	1		to fit completely into a straw
	7	half double round circles with lobster claw clasp	4	<a href="https://www.amazon.co.jp/-/en/Double-Circles-Lobster-Natural-Silver/dp/B008Q61PDG">https://www.amazon.co.jp/-/en/Double-Circles-Lobster-Natural-Silver/dp/B008Q61PDG</a>	If you can't get them, you should use nylon thread and plastic beads instead.
	8	bells	4	<a href="https://www.amazon.co.jp/-/en/Pieces-Bells-Crafting-Supplies-inches/dp/B07RN8J6G3">https://www.amazon.co.jp/-/en/Pieces-Bells-Crafting-Supplies-inches/dp/B07RN8J6G3</a>	
	9	Styrofoam block, around 45 mm cubic	1		
	10	Strongly adhesive double-sided tape	1		Used to fix the following items: straw and bobbin, thick paper and bobbin, thick paper and sail of IKAROS. Also attach to styrofoam.
	11	zerm clips	4	<a href="https://www.amazon.co.jp/-/en/Plus-Clip-CP-101J-Silver-35-351x5/dp/B019C3LMLQ?th=1">https://www.amazon.co.jp/-/en/Plus-Clip-CP-101J-Silver-35-351x5/dp/B019C3LMLQ?th=1</a>	
		nylon thread (for sewing or fishing), 12cm long	4		Thread the beads and tie one end to prevent it from falling out. Tape the other end to the four corners of the IKAROS sail.
	plastic beads of 12mm diameter	4			

- preparation**
- 1 Attach the bells to the each straps.
  - 2 Attach double-sided tape to the following : bobbins, 2 sheets of paper cut into a circle with a hole in a center, the bottom of styrofoam block.
  - 3 Make a hole of 9 mm in diameter in the center of the sail of IKAROS.
  - 4 Attatch the cable clips on the corner along the diagonal of the sail of IKAROS.

\*image: No.4 craft paper, square eye

