

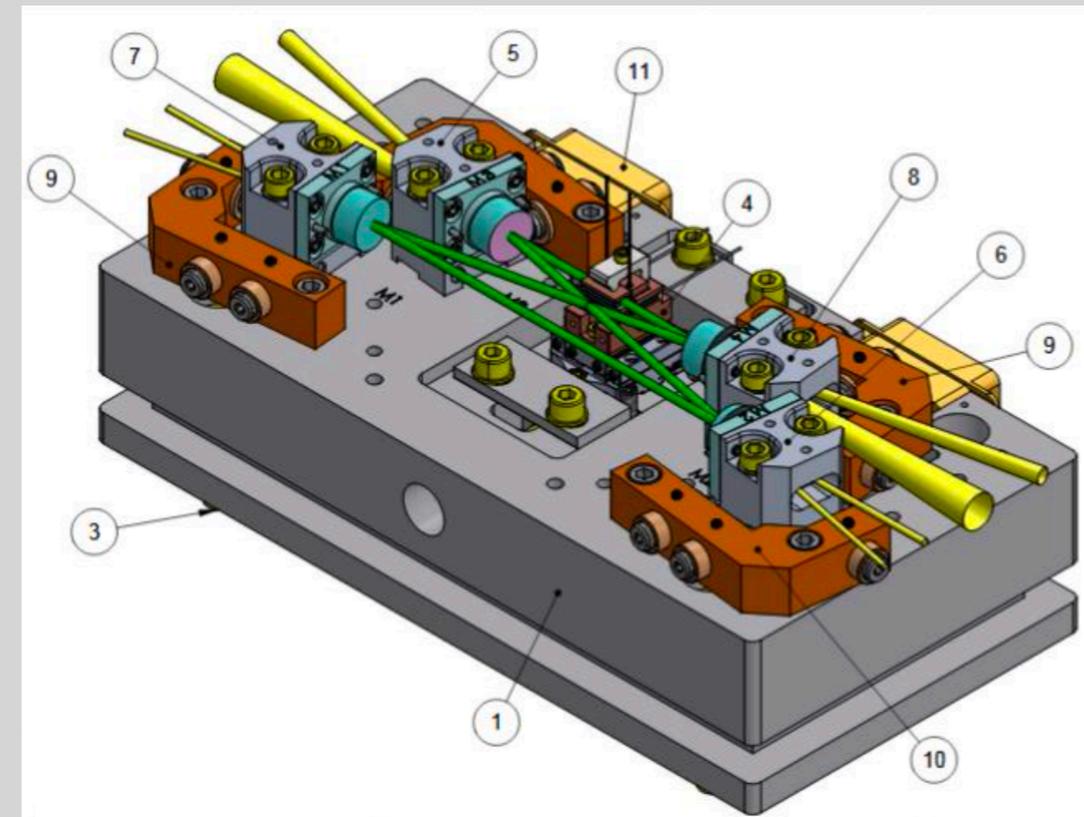
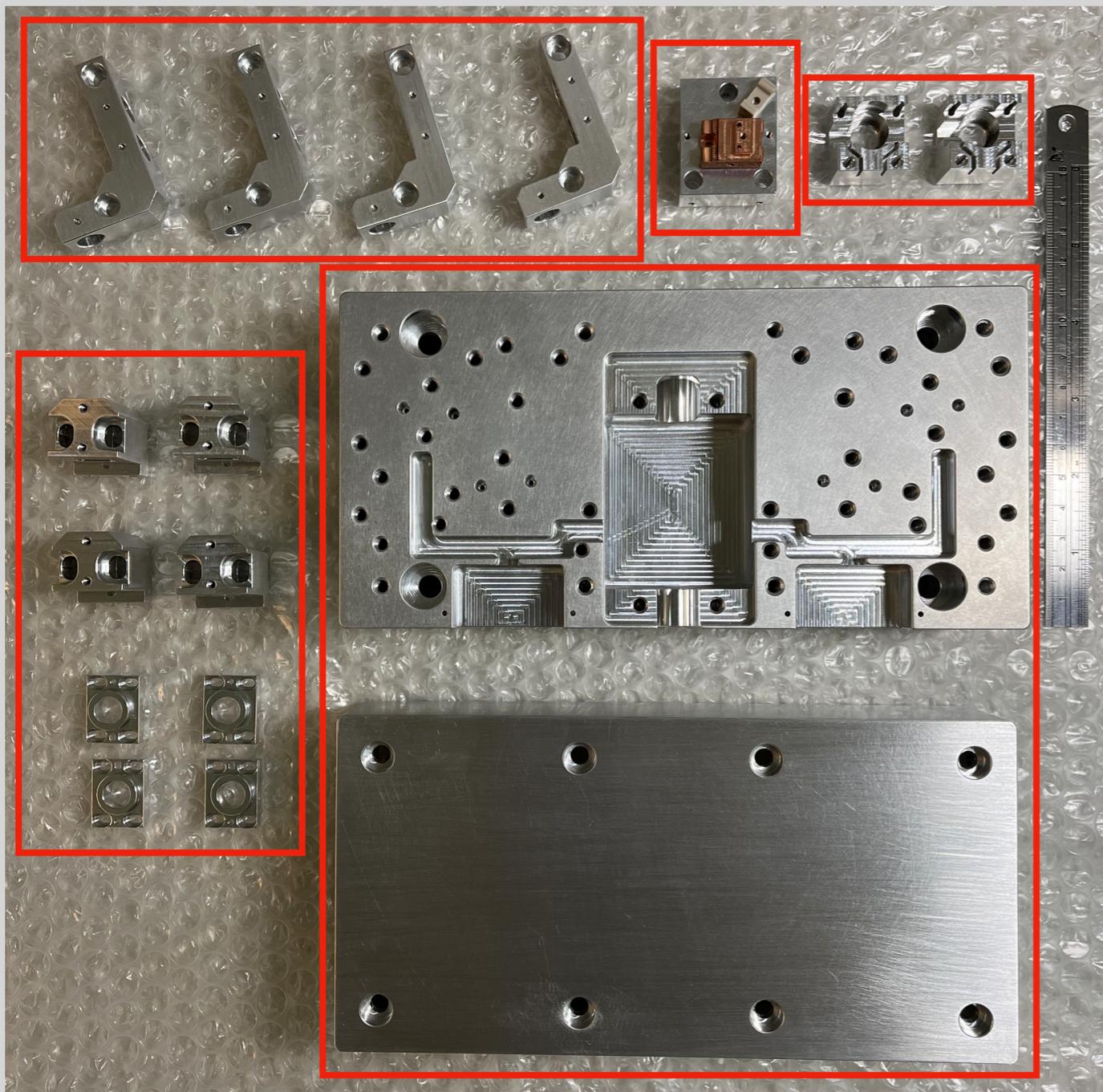
# OPO Cavity Design Update

# Building VOPO Cavity Procedure

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	Stage 1	Stage 2	Stage 3
<b>Goal</b>	Imitate aLIGO's original VOPO design	Transform the original design from imperial unit to metric unit one.	Test in NAOJ
<b>To-do list</b>	<ul style="list-style-type: none"><li>• Machinery process ✓</li><li>• Purchase mirrors (Laseroptik) and PZT (Noliac NAC2124-A01), PPKTP ( Raicol Crystals ), ✓ Cavity accessories.</li><li>• Assembling and Test.</li></ul>	Unknown.	Unknown.

# VOPO Cavity Mechanical pieces



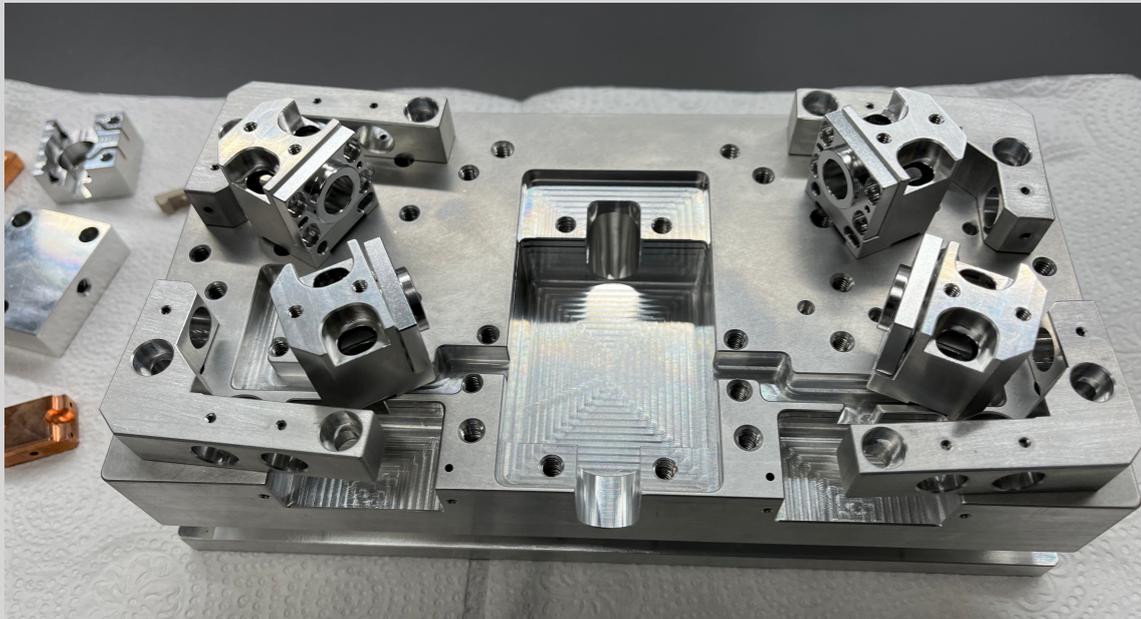
ITEM NO.	PART NUMBER	Additional Description	QTY.	With Tooling/QTY.
1	D1600059 VOPO Cavity Base Board	-	1	1
2	UCC WFV-25, Flat Washer, Vented, 0.255 ID, 0.468 OD, 0.032 THK	Washer for item number 3	4	4
3	92196A548	1/4"-20 x 1-3/4" 18-8 Stainless Steel Socket Cap Screw - Holo-Krome 78068	4	4
4	D1500300 aLIGO VOPO Oven	-	1	1
5	D1500299-103 VOPO Mirror Mount Assembly	-	1	1
6	D1500299-102 VOPO Mirror Mount Assembly	-	1	1
7	D1500299-101 VOPO Mirror Mount Assembly	-	1	1
8	D1500299-104 VOPO Mirror Mount Assembly	-	1	1
9	D1500301-102 VOPO Alignment Bracket Assembly	-	-	2
10	D1500301-101 VOPO Alignment Bracket Assembly	-	-	2
11	112125 AGP	Accuglass panel mount D9 (male) connector	2	2
12	HOLOKROME_78004	#2-56 x 1/4" SS SHCS	4	4
13	McMaster_90145A481, Pin 1/8" (.1251) x 7/16"	Pin between mirror mount assembly and baseplate	8	8
14	New VOPO Beam	-	1	1
15	Cavity Beam Out	-	1	1
16	D1600060 Cap Assembly	-	1	-
17	D1600125 aLIGO VOPO Cavity Wire Cover	-	2	-
18	HOLOKROME_78026	#8-32 x 3/8" SS SHCS	4	-

- All dimensions and screw hole size are made in imperial unit.
- All pieces are made of aluminum (6061-T6), except VOPO oven.

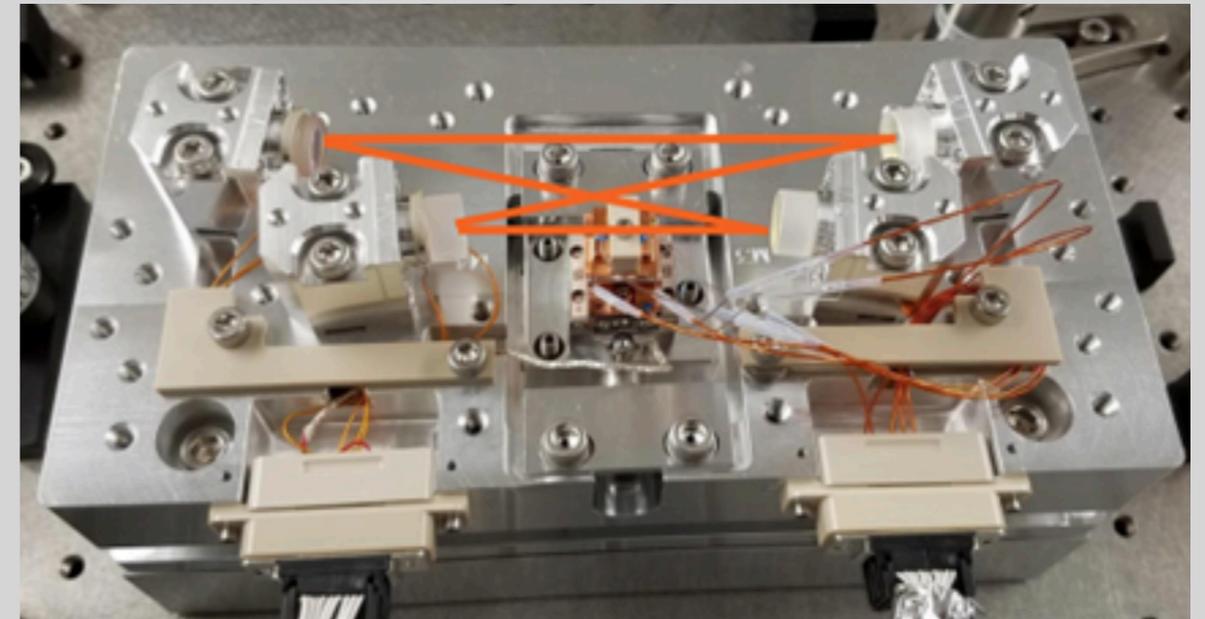
# On going things

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Current status



If finished



- The mirrors (LASEROPTIK GmbH) and PZT actuators (Noliac NAC2124-A01).
- Pelletier for the crystal oven.
- The electric connectors (UHV Connector – Panel Mount 9D Connector).