

List of necessary items regarding the OpLevs in bKAGRA (regular and LS OpLevs)

Regular OpLevs – QPD stage

Parts	RT	Cryo*
QPD driver		8
“Misumi” hexagonal screw spacer		32
Hex screw, cup point		32
Hex screw (M4x6; M4x8; M4x12)	iKAGRA	96; 32; 32
spacer		8
x-translator		16
Angle holder		8
Spacer circ.		8

LS OpLevs – QPD stage

Parts	RT	status	Cryo**
QPD driver (Miyakawa-san)	7	ordered by Aso-san?	4
“Misumi” hexagonal screw spacer	28	21 ordered (7 more needed)	16
Hex screw, cup point	28	35 ordered	16
Hex screw (M4x6; M4x8; M4x12)	112; 28; 28		64; 16; 16
spacer***	7	existent	4
x-translator	21	21 ordered	12
Angle holder	7	7 ordered	4
Spacer circ.	7	need discussion with Aso-san	4

LS OpLevs – Additional Items

Parts	RT	status	Cryo**
Lens	7	existent	4
XY-translator	7	existent	4
mirror	7 – 21	20 existent	8 – 12
Beam splitter	7	existent	4
Mirror mount + centering plate	14 – 28	21 existent	12 – 16

Posts + post holder	21 – 35	21 existent	16 – 20
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(necessary amount of screws [M4x12 and M4x8] have been purchased already)

* – The given numbers are related to a basic configuration assuming 2 regular OpLevs per test mass

** – The given numbers are related to a basic configuration assuming 1 LS OpLev per test mass

*** – The spacer is differently shaped as the one for the regular OpLevs (see <https://gwdoc.icrr.u-tokyo.ac.jp/cgi-bin/private/DocDB/ShowDocument?docid=6057>)