



Initial Alignment Status and Plans (LHO)

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f2f commissioning meeting at LHO (28/Oct/2014)
LIGO-G1401257-v1

(Historical) Reviews

- Original plan (G1400193-v1)

 - * IA was thought to be a part of full lock sequence

- IR WFSs turned out to be useful (G1400193-v2)

 - This let us stop using dither loops.

- ALS cameras installed on ISCT1

- Green WFS becoming usable

Current status at LHO

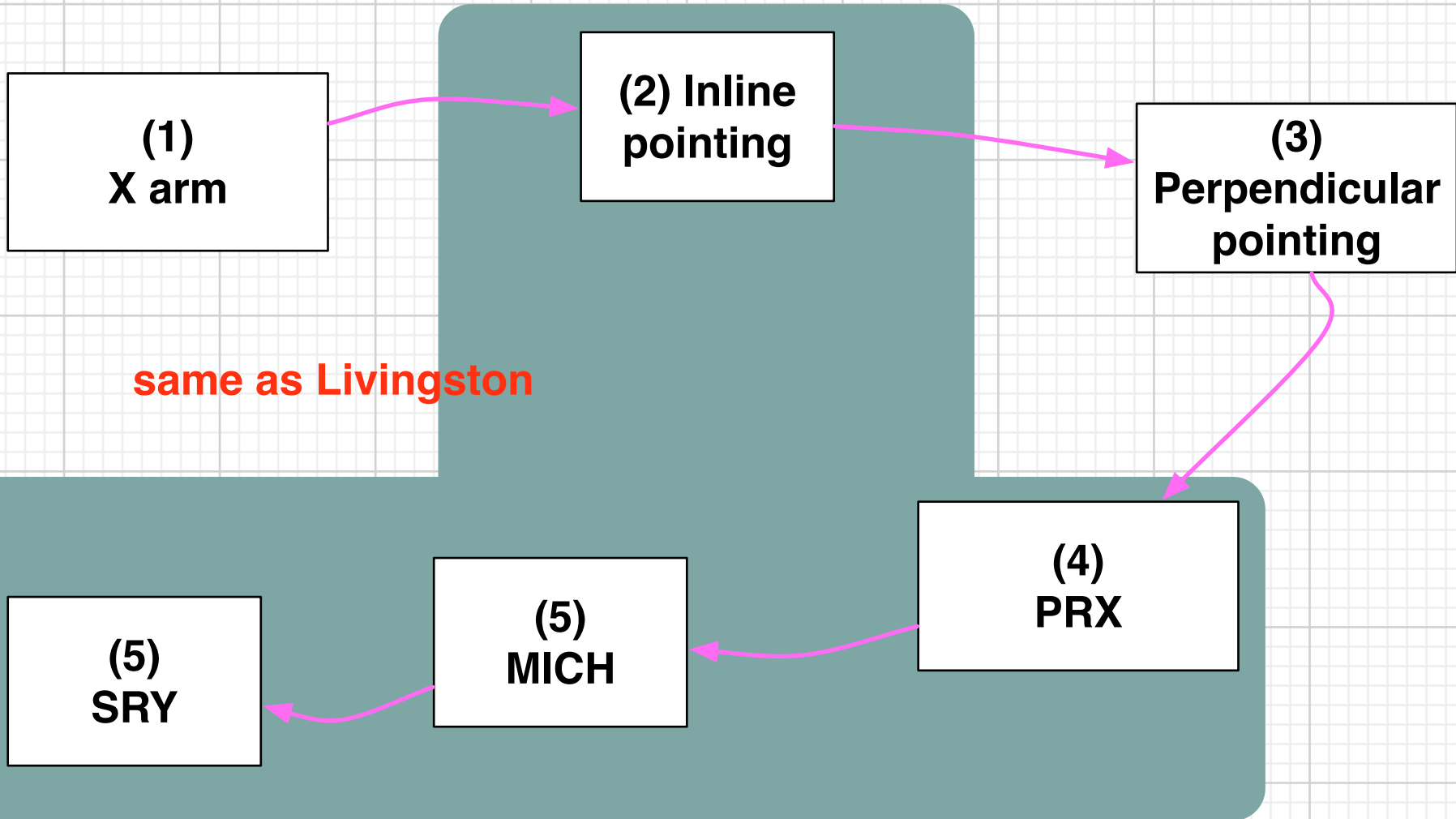
- Not fully automated yet

 - * Each piece is being automated with Guardian

- Arm cavities are far from automation

- Green WFS becoming usable

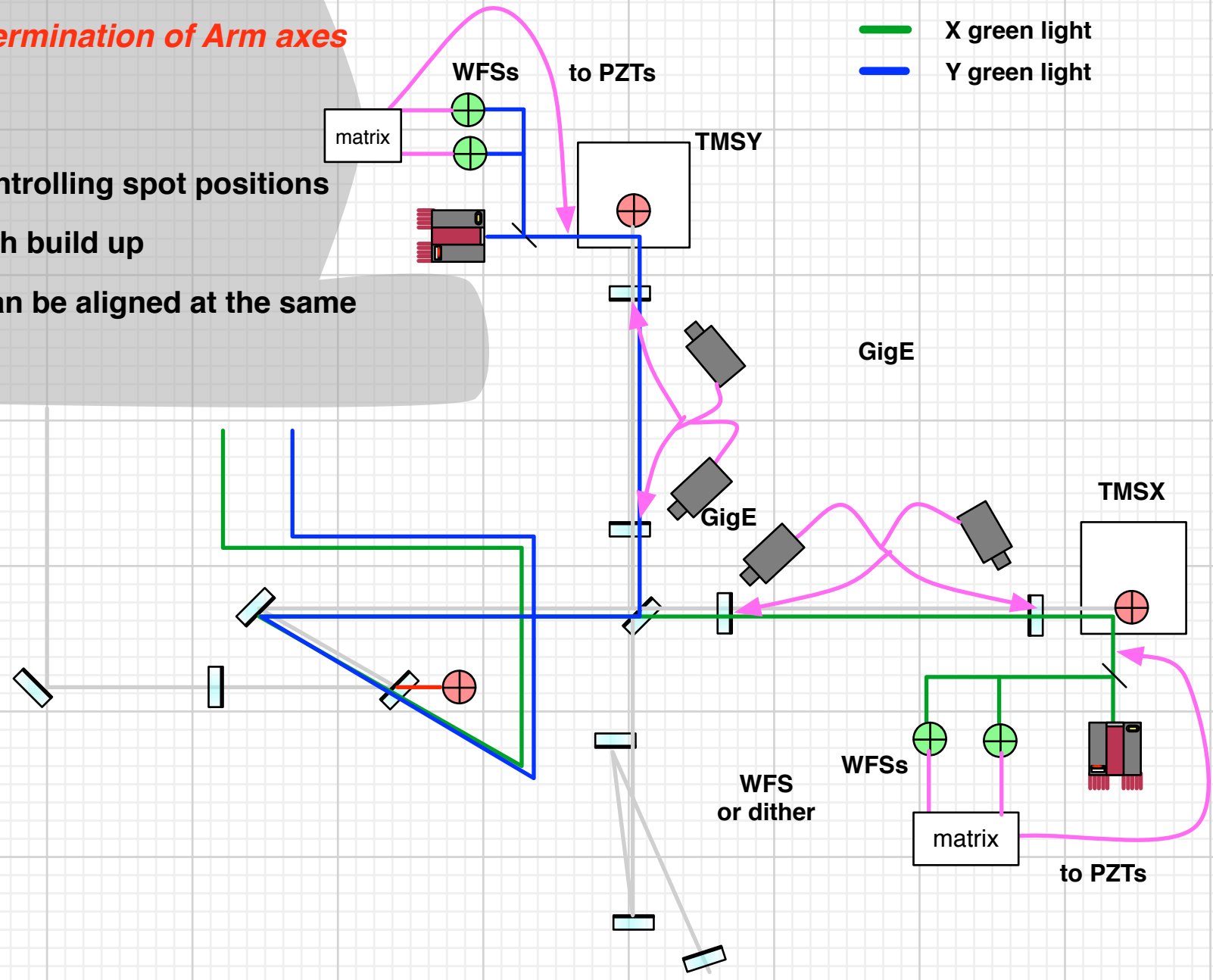
Current alignment sequence



Plan for Determination of Arm axes

X green light
Y green light

- GigEs for controlling spot positions
- WFSs for high build up
- Both arms can be aligned at the same time



Current scheme for X arm

- ITMX GigE for fixing TMSX angle
- Manually steer ITMX and ETMX to achieve high green build-up

Current scheme for Y arm

- ETMY baffle for fixing BS angle
- Steer ITMY and ETMY for high red build-up
- Steer TMSY and PZTs for high green build-up

Current (non-critical) issues

● IR WFSs do not optimize PRC ?

* After initial alignment, it is close enough to lock DRMI, but PRM seems to be always misaligned by a few urads. Clipping somewhere, dark offset ?

● Guardians need to be organized