

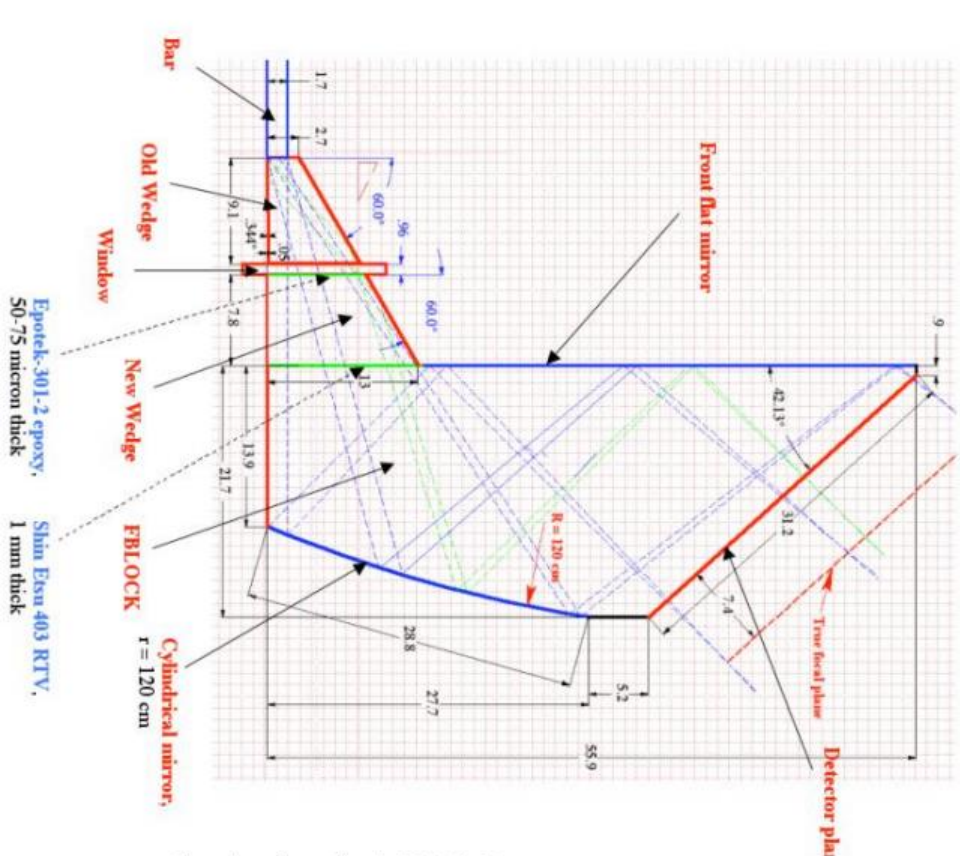
# DiRC Prototype Status

4/2/15

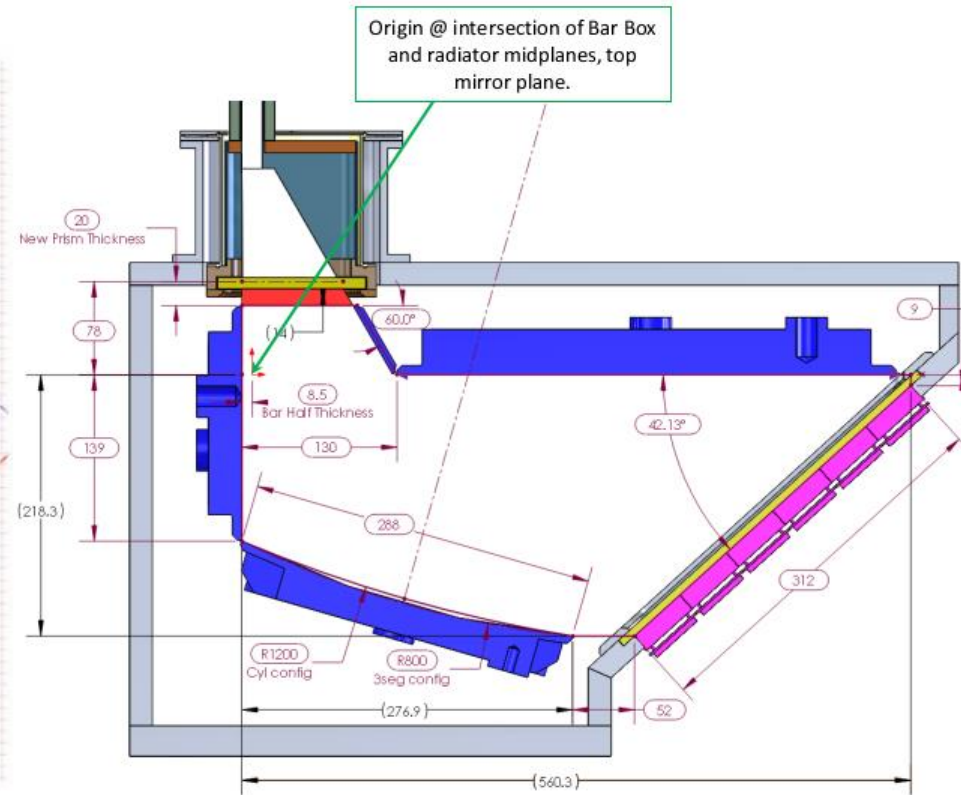
# Design

Slide from J. Bessuille

## Driving Dimensions



Dimensions from John H: 2014-10-21



Solidworks Model definition from Jason B: 2014-10-24  
 Encircled dimensions are driving  
 Dimensions in parentheses are driven (i.e. measured)

# Mirror Fabrication: 5 steps

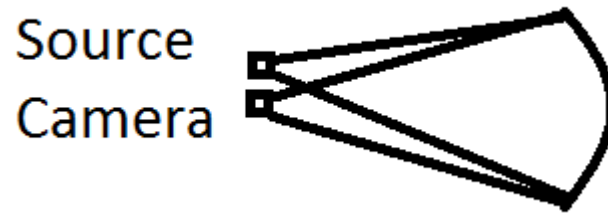
- 1) Grind aluminum base ~\$4k
- 2) Coat with (high Phosphorous) Ni
  - Getting quotes (Order of magnitude: ~2k)
- 3) Grind Nickel ~1.3k
- 4) Coat with reflective Al ~1.9k
  - Also, protective coating
- 5) Characterize mirror properties

# Step 1 – Done for a Mirror



# Plans for measurement

- Care about single photon angular effects from mirror coating
- LHCb measured spherical mirrors as follows:
  - Place source and camera slightly offset from center of mirror sphere and use received light intensity/dispersion



# Plans for measurement (cont)

- Use a “perfect” small spherical mirror
- Put the flat mirror in the way
- Therefore, all observed dispersion from flat mirror
- Still under development

