1st of fortnightly meetings

Attendees - Nic Erasmus, James O'Connor, Egan Loubser, Ali Ranjbar, Chris Mottram, Stuart Bates

Mechanical

- We now have a Zemax file from Iain, this model makes the instrument a little more compact, (model sent to James).
- Iain has requested the filters in the filter slides be increased to 35mm clear aperture (from their current 30mm)
  - ◆ From James, this increase would require either longer translation stages to position each filter slide or a reduction in the number of filters from 3x4 (5 position filter slides with one clear position in each), to 3x3.
  - ◆ Ali is looking to reduce the length of the grism assembly further (currently 40mm)
- Ali has suggested a stepper motor be used to rotate the grism assembly to optimise for red and blue, looking into feasibility
- James has requested LJMU start looking at their requirements for the instrument interface
- We will be using compressed air for slit, calibration mirror and grism assembly deployment

Control

- James will speak with electronic control people at his end regarding controlling filter slides, stepper motor and solenoids
- Chris Mottram looking at options to control stepper and filter slides
- SAAO mentioned dissapointing results using Ardunio's in the past
- Nic and Chris discussing software layers, which controls what
- We should create a diagram showing all control and power items, and their relationships with each other

Optics

- Iain raised concerns regarding substrate materials if we are to use use this instrument to observe further blue than 400nm

Organisation

- It was agreed we need to put a schedule together to co-ordinate effort appropriately

Action Items/ Decisions Req'd

- Increasing the filter clear aperture - is this a no-go from a science perspective (reducing filters or longer filter actuators)? - Science team
- Reduce length of Grsim assembly further - Ali
- Purchase and test stepper motor - LJMU
- Produce model of required instrument interface - LJMU
- Decide how will actuators be controlled - Chris/Nic

- Create diagram showing all power, control and motion requirements and relationships - LJMU
- Create initial schedule - LJMU

Date of next meeting - Friday 13/12/2019