

## **The Fibre Positioning Concept for WEAVE at the WHT**

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### **Abstract**

WEAVE is the next-generation wide-field optical spectroscopy facility for the William Herschel Telescope (WHT) in La Palma, Canary Islands, Spain. It is a multi-object “pick and place” fibre fed spectrograph with more than one thousand fibres behind a new dedicated 2° prime focus corrector, This is similar in concept to the Australian Astronomical Observatory’s 2dF instrument<sup>1</sup> with two observing plates, one of which is observing the sky while other is being reconfigured by a robotic fibre positioner. It will be capable of acquiring more than 10000 star or galaxy spectra a night.

The WEAVE positioner concept uses two robots working in tandem in order to reconfigure a fully populated field within the expected 1 hour dwell-time for the instrument (a good match between the required exposure times and the limit of validity for a given configuration due to the effects of differential refraction).