

MOS instruments require complex fiber systems with hundreds or thousands of individual fibers to enable simultaneous spectral data collection from multiple sky objects. Typically, each fiber is mounted in a positioner at the telescope end, and terminated in a slit at the spectrograph end. Some instruments have complete end-to-end runs, others use separate assemblies for various sections, joined by interconnects. FTO can support both the end-to-end and segmented (connectorized or fused) fiber runs. MOS systems can be a retrofit or upgrade to an existing telescope.

CHALLENGES

- Long fiber runs require low stress processing to preserve throughput
- · Complex routing, mapping
- · Exacting terminations with tight mechanical tolerances
- Need to be mechanically robust to handle long term telescope operation
- Frequently require optics at input and/or output

FTO CAPABILITIES

- · Leverage years of industrial cable manufacturing expertise
- · Broad expertise in optical assembly, alignment and testing
- Well equipped optical testing lab
- · Established and proven manufacturing processes
- Ability to develop and implement manufacturability improvements
- Quick ramp-up to volume production
- Component traceability and quality assurance records











