

# PRECISION RADIAL VELOCITY



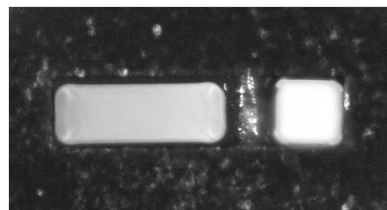
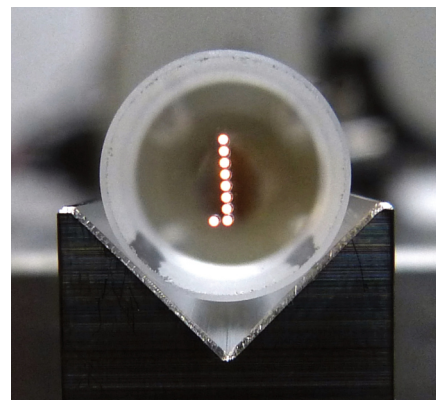
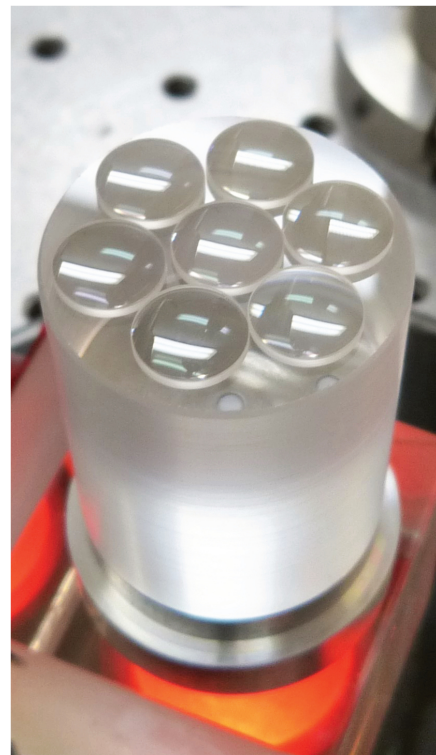
PRV systems use very high resolution spectroscopy to observe minute shifts in star rotation, thus enabling exoplanet detection. To achieve this, they need to be extremely stable and precisely calibrated.

## CHALLENGES

- Thermally stabilized spectrograph: vacuum feed-throughs
- Mode stability in fibers: non-circular cores, mode scrambling
- Long cable lengths
- Typically, small core fibers
- Complex fiber system topology, combining calibration, sky and signal fibers

## FTO CAPABILITIES

- Extensive experience with vacuum sealing of individual fibers and multi-fiber bundles
- Production of long and complex cable assemblies
- Handling of non circular-core fibers
- Fiber arrays, including clocked fibers
- In-coupling optics
- Custom opto-mechanical component design
- Low stress assembly and processing



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