

# Tic TAC: McDonald Observatory Telescopes and Instruments

<http://mcdonaldobservatory.org/research/>

## Telescope Information

Telescope	Mirror Diameter	Telescope Tube	Year Completed	Special Features and Uses
0.8 m	0.8 meter	closed	1970	With the Prime Focus Corrector and CCD it can image large portions (about 3/4 degree) of the sky.
Otto Struve	2.1 meters	open	1938	open tube structure. Mirror weights 1900 kg.
Harlan J. Smith	2.7 meters	closed	1969	closed tube structure. Mirror weights 3540 kg. Coudé focus and high resolution spectrograph.
Hobby-Eberly	11 meters	open	1997	third largest optical telescope in the world; specializes in spectroscopy. Primary mirror made of 91 one-meter mirrors.

## Instrument Information

Instrument	Telescope	Spectrograph (yes/no)	Image (yes/no)	Special Use, Field of View, Sensitivity
Cassegrain Spectrograph	2.1-m Struve	yes	no	Medium spectral resolution with resolving power of 600-2,500 over the wavelength range from 0.3 to 1.1 micrometers. Spectral and spatial coverage.
Prime Focus Corrector camera	0.8-meter	no	yes	Finding extrasolar planets, Near Earth Asteroids, comets, and supernovae. Wide field of view (45 arc-minutes, bigger than the angular size of the moon)
CoolSpec/RokCam	2.7-m Smith	yes	no	Wavelength range of 1 to 2.5 micrometers; infrared
Coudé Spectrometer	2.7-m Smith	yes	no	Medium to very high spectral resolution depending upon which grating is used (7 available).
IGI, IGP	2.1-m Struve or 2.7-m Smith	sometimes	sometimes	Two observing modes to obtain low resolution spectra or polarized light (polarimetry). Focal reducer optics for wide field of view and bright images,
Marcario Low Resolution Spectrograph	HET	yes	no	Limiting magnitude of 23 and the field of view is 4 arc-minutes. Has multi-slit object mode so that more than one object can be observed at once.
Argos	2.1-m Struve	no	yes	Measures the intensity of light with a CCD in very short time intervals. Narrow field of view (2.8 arc-seconds)