

## **APPENDIX: a List of Robotic Telescopes**

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**Abstract.** In order to help the reader keep somewhat abreast of the rapid development in the field of robotic telescopes, the current list on the web available at the Göttingen MONET website<sup>1</sup> is included here as an appendix.

The selection of sites in the following tables is probably not exhaustive – I apologize to any colleagues who feel left out. I have not included systems which are nearly robotic (i.e. which need a local operator to get the system started each night) but have included proposed (i.e. unfunded) projects (e.g. ROBONET and NOT) in the hopes that they will be funded and eventually of more immediate interest. The following abbreviations are used:

**APT** : (usually) Automatic Photoelectric Telescope

**B&C** : Boller & Chivens

**C14** : Celestron 14-inch Schmidt-Cassegrain

**GRB** : Gamma-Ray Bursts

**NEO** : Near-Earth Objects

**TNO** : Trans-Neptunian Objects = Kuiper-Belt Objects

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<sup>1</sup><http://www.astro.physik.uni-goettingen.de/~hessman/MONET>

Table 1: List of Robotic Telescopes

	Name & Institution	Telescope(s) & Site	Purpose(s)	Status & WWW
1	All-Sky Astronomical Survey (ASAS) [Warsaw]	2cm Las Campanas/Chile	All-sky survey of stars < 12 mag	In operation from 1997-2000 (www.astrouw.edu.pl/~gp/asas/asas.html)
2	All-Sky Astronomical Survey III (ASAS-3) [Warsaw, Princeton]	2x7cm, 1x25cm Las Campanas/Chile	All-sky survey of stars < 16 mag	Being commissioned (www.astrouw.edu.pl/~gp/asas/asas3.html)
3	Antipodal Transient Observatory (ATO) [Washington Univ., IIA Bangalore]	2x Torus 50cm Sonolita/Arizona, Mt. Saraswati/India	GRB	Being commissioned (jelly.wustl.edu/pages/def+ato)
4	Apogee Robotic Observatory (ARO) [Apogee Inc.]	C14 Tucson/Arizona	Commercial test-bed	Under construction (www.apogee-ccd.com/aro.html)
5	Automated Patrol Telescope [Univ. New South Wales]	Modified 50cm Baker-Nunn Siding Spring/Australia	GRB, service obs.	In operation (newt.phys.unsw.edu.au/~mcha/apr.html)
6	Automatic Imaging Telescope [Univ. Perugia]	40cm Newtonian Perugia/Italy	Service obs.	In operation since 1994 (wwwospg.pg.infn.it/osserv.htm)
7	Automatic Radio-Linked Telescope [Western New Mexico Univ.]	44cm Silver City/New Mexico	Nova, supernova searches	In operation (www.info.edu/info.html)
8	Automatic Telescope [Novosibirsk State Univ.]	Novosibirsk/Russia		(vega.inp.nsk.su/index.php3)
9	Bisei Spaceguard Center [Japan Space Forum]	Torus 50cm, 100cm Bisei/Japan	NEOs	Being commissioned (www.torusoptics.com/japan.htm)
10	Bradford Robotic Telescopes [Bradford Univ., IAC, Manchester]	46cm Tenerife	Education, GRB searches	Replacement of original telescope underway (www.telescope.org/rti)
11	Burst Observer & Optical Transient Exploring System (BOOTES) [Spain, Czech Republic]	2x5cm, 2x30cm Mazagon/Spain	GRB followups	Being commissioned (www.laef.esa.es/~ajct/BOOTES)
12	Carlberg Meridian Telescope [Copenhagen Obs.]	18cm La Palma	Astrometry	In operation since 1984 (www.ast.cam.ac.uk/~dwe/SRF/camc.html)
13	Carl Sagan Observatory [Univ. Sonora]	Coronado Inst. Group 55cm Cerro Azul/Mexico	SN, Education	Under construction (cosmos.cis.uson.mx/Infraestructura/ocs/ocs.htm)
14	Catania Automatic Photoelectric Telescope [Catania Obs.]	80cm APT Mt. Aetna/Sicily	Photometry	In operation since 1992 (w3.ct.astro.it/aprweb/aprweb.html)
15	Centro de Astrobiología [CAB]	Torus 40cm, 2x50cm Spain	Exoplanets	Under construction (www.cab.inta.es)
16	El Enano [Swarthmore, Las Cumbres Obs., Illinois]	50mm Cerro Tololo/Chile	H $\alpha$ survey	In operation since 1998 (www.swarthmore.edu/Home/News/Astronomy)
17	Explosive Transient Camera (ETC) [MIT]	16x 25mm Kitt Peak/Arizona	GRB	In operation since 1991 (space.mit.edu/ETC)
18	Fairborn Observatory [Fairborn Obs.]	Home of many Patagonia/Arizona	Mostly photoelec. service obs.	In operation (24.1.225.36)
19	Four-College Automatic Photoelectric Telescope [Villanova, Cidade, Charleston College, University of Nevada/Las Vegas]	80cm APT Patagonia/Arizona	Photometry	In operation (24.1.225.36/t5.html)
20	Gamma Ray Binocular (GRAB) [NCU Taipei]	C14, Meade 40cm Kenting/Taiwan	GRB	Being commissioned (24.1.225.36/t5.html)

Table 1: List of Robotic Telescopes (continued)

	Name & Institution	Telescope(s) & Site	Purpose(s)	Status & WWW
21	Global Network of Automatic Telescopes (GNAT) [GNAT]	SciTech 50cm Tucson/Arizona	Service Obs.	Being commissioned (www.gnat.org/~ida/gnat)
22	Hungarian Automated Telescope (HAT) [Konkoly Obs.]	6cm Hungary	All-sky monitoring	In operation (www.konkoly.hu/staff/bakos/HAT)
23	Iowa Robotic Telescope Facility (IRTF) [Univ. Iowa]	18cm, 50cm Iowa City/Iowa, Sonoita/Arizona	Education	In operation (denali.physics.uiowa.edu)
24	Italian Robotic Antarctic Infrared Telescope [IRAIT] [Perugia Univ.]	80cm Montone/Italy	IR service obs.	Being commissioned (www.wspg.pg.infn.it/irait.htm)
25	IUCAA 2-m [IUCAA]	TTL 2.0m India	Potential robotic use	Under construction (www.iucaa.ernet.in/~hktias/telescope.html)
26	Katzman Automated Imaging Telescope (KAIT) [UC Berkeley]	76cm Lick Obs./California	Supernova searches	In operation since 1989 (astro.berkeley.edu/~bat/ka.it.html)
27	KAO Robotic Telescope [Korean Astronomical Observatory]	ACE 1.0m Arizona	Service obs.	Being commissioned
28	Livermore Optical Transit Imaging System [LOTIS] [LLNL]	4x11cm Livermore/California	GRB	In operation since 1996 (hubcap.clemson.edu/~ggwilli/LOTIS)
29	Liverpool Telescope [John Moores Univ.]	TTL 2.0m La Palma	Service obs.	Under construction (telescope.livjm.ac.uk)
30	Multicolor Active Galactic Nuclei Monitoring (MAGNUM) [Univ. of Tokyo, NAOJ, ANU] Halekالا/Hawaii	EOST 2.0m Halekالا/Hawaii	AGN	Being commissioned (merope.mtk.nao.ac.jp/~yuki/mage.html)
31	Monitoring Network of Telescopes (MONET) [Univ. Göttingen, McDonald, SAAO]	80-120cm Mt. Locke/Texas, Sutherland/South Africa	Service obs., Education	Funded (www.uni-sw.gwdg.de/~hessman/MONET)
32	Nassau Station Robotic Telescope [Case Western Reserve Univ.]	90cm Chardon/Ohio	Education, Service obs.	In operation since 1999 (astrwww.cwru.edu/nassau/nassau.html)
33	National School Observatories (NSO) [John Moores Univ., Liverpool]	2x TTL 2.0m Halekالا/Hawaii, Siding Spring/Australia	Education only	Under construction (www.schoolsobservatory.org.uk)
34	Nepean Astronomy Center [Univ. West. Sydney]	60cm Werrington/Australia	Education	Currently being roboticized (www.uws.edu.au/observatory/)
35	Network of Oriental Telescopes (NOT)	1.5-2.0m North Africa, Near East	Education, service obs.	Proposed (www.saa0.ac.za/~wgssa/as2/nort.html)
36	Ondrejov Robotic Telescope [Astron. Inst., Ondrejov]	Meade 30cm Ondrejov/Czech Republic	GRB	In operation since 1997 (altamira.asu.cas.cz/ort.html)
37	Phoenix 10" [Franklin & Marshall College]	25cm Patagonia/Arizona	Photometry	In operation since 1983 (www.fandm.edu/Departments/Astronomy)
38	Riken-Bisei Optical Transient Survey (RIBOTS) [Riken, Bisei Obs.]	Meade 30cm Bisei/Japan	GRB	In operation
39	ROBONET [St. Andrews Univ.]	6x 2.0m global network	Service obs.	Proposed (polaris.st-and.ac.uk/~kdh1/jifpage.html)
40	RoboScope [Univ. Indiana]	B&C 41cm Morgan-Monroe/Indiana	Monitoring	In operation since 1990 (www.astro.indiana.edu/RoboScope.html)

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41 Robotic Optical Transient Search Experiment I (ROTSE I) [Los Alamos, LLNL, Univ. Michigan]	4x11cm Los Alamos/New Mexico	GRB, all-sky survey	In operation since 1998 (www.umich.edu/~rotse)
42 Robotic Optical Transient Search Experiment III (ROTSE III) [Univ. Michigan, Univ. New South Wales, MPI Physik]	4x50cm Los Alamos/New Mexico, Siding Spring/Australia, Namibia	GRB, all-sky survey	Under construction (www.umich.edu/~rotse/rotse-iii/rotseiii.htm)
43 Robotically Controlled Telescope (RCT) [Western Kentucky Univ., S. Carolina State Univ., Planetary Sci. Inst., Berkeley]	1.3m Kitt Peak/Arizona	Service Obs.	Being refurbished (www.psi.edu/rct)
44 Robotiche Observatorium der Theoretische Astrophysik Tübingen (ROTAT) [Univ. Tübingen]	Meade 30cm, refurbished 60cm Tübingen/Germany, Haute-Provence/France	Service obs.	Being commissioned (www.tat.physik.uni-tuebingen.de/~blum/ROTAT)
45 SAO APT [SAO]	75cm Sutherland/South Africa	Photometry	In operation since 2000
46 SpectraBot [Univ. Indiana]	1.25m Morgan-Monroe/Indiana	Spectroscopy	In operation since 1999 (www.astro.indiana.edu/spectrabot.html)
47 STELLA [Hamburg, AIP, IAC]	Halfmann 1.2m Tenerife	Spectroscopy	Under construction (www.aip.de/groups/turbulence/stella.html)
48 Strömgren Automatic Telescope [Copenhagen Obs.]	50cm La Silla/Chile	Photometry	In operation (www.astro.ku.dk/~ijaf/0p5m.html)
49 StromoTNO [MSSSO]	1.3m Mt. Stromlo/Australia	TNOs	Being fully robotized (www.macho.anu.edu.au)
50 Super-LOTIS [LLNL, Clemson]	Upgraded B&G 60cm Kitt Peak/Arizona	GRB	Being commissioned (hubcap.clemson.edu/~eggwilli/LOTIS/super.html)
51 Taiwan-America-Occlusion-Survey (TAOS) [Academia Sinica, NCU Taiwan, LLNL]	3x Torus 50cm Yu Shan/Taiwan	NEOs	Under construction (taos.asia.sinica.edu.tw)
52 Telescope a Action Rapide pour les Objets Transitoires (TAROT) [Toulouse]	Valmecca 28cm Plateau du Calern/France	GRB	In operation since 1998 (www.cesr.fr/~boer/tarot)
53 TENAGRA Observatory [private]	C14, OCS 50cm, SciTech 78cm Oregon, Patagonia/Arizona	SN searches	In operation, 78cm being commissioned (www.tenagraobservatories.com)
54 Tennessee Automatic Photoelectric Telescopes [Tennessee State Univ.]	30,60,76cm APT Patagonia/Arizona	Photometry	In operation (schwab.tsmuiv.edu)
55 Tennessee Spectroscopic Survey Telescope [Tennessee State Univ.]	2.1m Patagonia/Arizona	Spectroscopy	Being commissioned (schwab.tsmuiv.edu/t13.html)
56 Torus Observatory [private]	Torus 60cm Nevada	Service obs.	Replacement under construction (www.torusoptics.com/torus.htm)
57 Wolfgang-Amadeus [Univ. Vienna]	2x76cm APT Patagonia/Arizona	Photometry	In operation since 1996 (www.astro.univie.ac.at/~hgs/APT)
58 Yonsei Survey Telescopes for Astron. Research (YSTAR) [Yonsei Univ./Korea]	2-x Torus 0.5m Korea	All-sky survey	Commissioning of first telescopes (cssweb.yonsei.ac.kr/~byun/YStar)