

# NetSmART : Network of Small Robotic Telescopes for Universities

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## Abstract

A group of universities have come together with the aim of designing and developing small aperture robotic telescopes (SmART) for use by students to observe variable stars and transient follow-ups. The group is deliberating on the components of the robotic system e.g. the telescope, the mount, the back-end camera, control software etc and their integration keeping in mind the scientific objectives.

The Marburg group is studying variable stars using photometric and spectroscopic observations in a small local observatory and via analysis of photo plate archival data mainly from Sonneberg observatory (Thuringa, Germany). Our goal is to setup a small, affordable observatory at Marburg University with full remote access to all components. Among others the future measurements can be follow-ups, variable stars, exoplanet search and spectroscopic measurements, e.g. in cooperation with the BRITe-constellation.

The open source software package INDI (alone or combined with KStars) is suitable for controlling an observatory. The tool RTS2 offers functionality like scheduling to enable autonomous operation. However, a software for integrating single observatories into a network still has to be developed.

We would like to invite other universities and interested astronomers to join the project and cooperate in setting up a network of small aperture robotic telescopes (NetSmART) around the globe.

## Keywords

robotic telescopes, university network, photometry and spectroscopy