

Shooting 3D Tabletop with Webcam and Raspberry Pi

This workshop presents photographing processing of close ups applying USB cams connected to a Raspberry Pi.

Webcams or USB cams can have a very near focus distance and adapt very well to lightning conditions.

The camera is mounted on a linear actuator driven by a step motor for base bracketing.

Focus bracketing is integrated in the automatic procedure as well.

The Python software makes use of OpenCV and the GPIO and GUI libraries.

The headless RPi is operated via VNC connection.

File transfer to the host is made by an FTP client for further processing by standard image and stereo editing software.

Enjoy the stereopics of Captain Scarlet merchandising items (a British TV science fiction series from 1967), distributed via YouTube and web HTML 5 viewer. <https://www.youtube.com/watch?v=uWjLRtvSOO4>

About the Author

Dr. Guenter Pomaska worked for many years in the fields of photogrammetry and application software development and support.

He was teaching computer graphics and related topics in higher education institutes.

After retirement he became a member of DGS and ISU and directed his activities into special applications of stereoscopy.