

LIVE REMOTE CONTROL OF A MILKYWAY DOME OBSERVATORY

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RESUMEN

Una conexión remota se realizó con el observatorio el 11 de octubre de 2013 con placa de relés e interface de bajo costo. Haciendo posible el seguimiento de alertas astronómicas

ABSTRACT

A live connection with remote observatory was possible beginning 2013 October 11 with a relays board and an interface board using low-cost technology. This capability enables the follow-up of astronomical alerts.

Key Words: telescopes

Milkyway domes has developed its own encoder and board to control the dome rotation. Also the relays board has been developed completely by Milkywaydomes.com. as shown in Figure 1.

The relays box controls the scope and cameras power supply, as well as the dome rotation. All the devices are protected by an UPS in case of power outage. IP cam gives a live view of the system working inside the dome by means of a motorized cam, and it can also send alerts in case of intrusion inside the observatory.

The Teamviewer software gives access to the host computer. Relays box connects cameras, telescope and controls the dome rotation. The telescope is controlled by the computer through a RS232 port connection. The IP camera is only necessary to look inside the observatory to ensure that everything is running well and to check that there is not any intrusion during or after the remote session.

The telescope has a CCD camera with guiding and main sensors, for taking data from deep sky objects. A connection with Astrometry.net gives the telescope centering accuracy below one arc second.

There is also another allsky camera placed on top of the main telescope to give a wider view of the dome slot and weather conditions.

REFERENCES

- Pierre de Ponthiere, & LesveDome Dome driver
<http://pierre-de-ponthiere-pierredeponthiere-gm.software.informer.com/>
 Yates, L. & SS2K ASCOM DRIVER

¹Milkywaydomes.com

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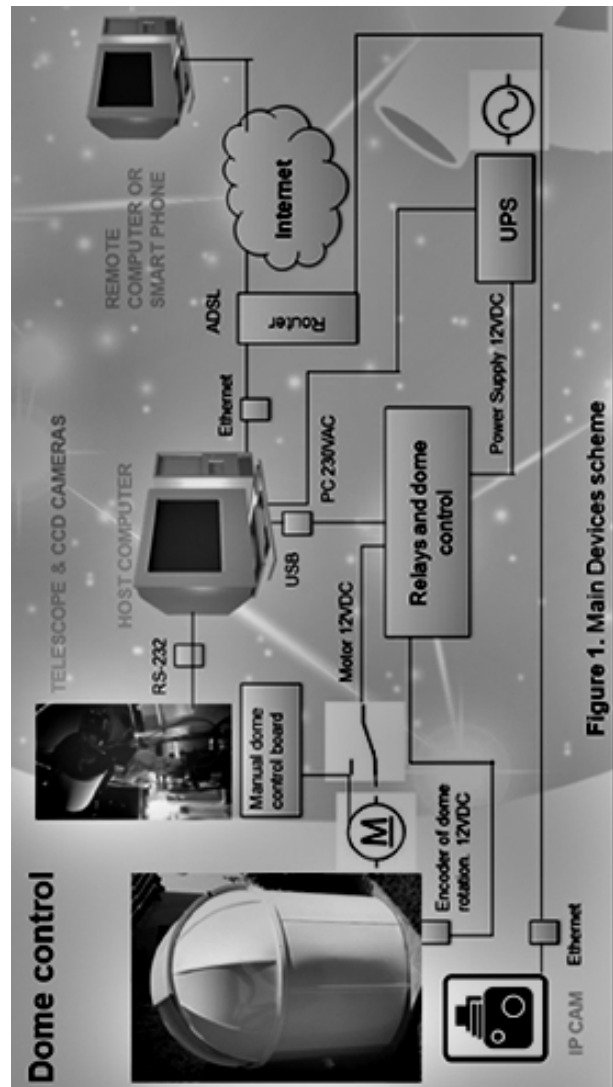


Figure 1. Main Devices scheme

Fig. 1. General Scheme