



Electronics & Software / Optics

Laser Power Tuning Project For Virgo

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LIGO-G070362-00-Z

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Devices

- Rotator (Micos)



- 2 phase stepper motor
- resolution 0.0021 deg
- speed max 5 deg/s

- Controller (Pollux)

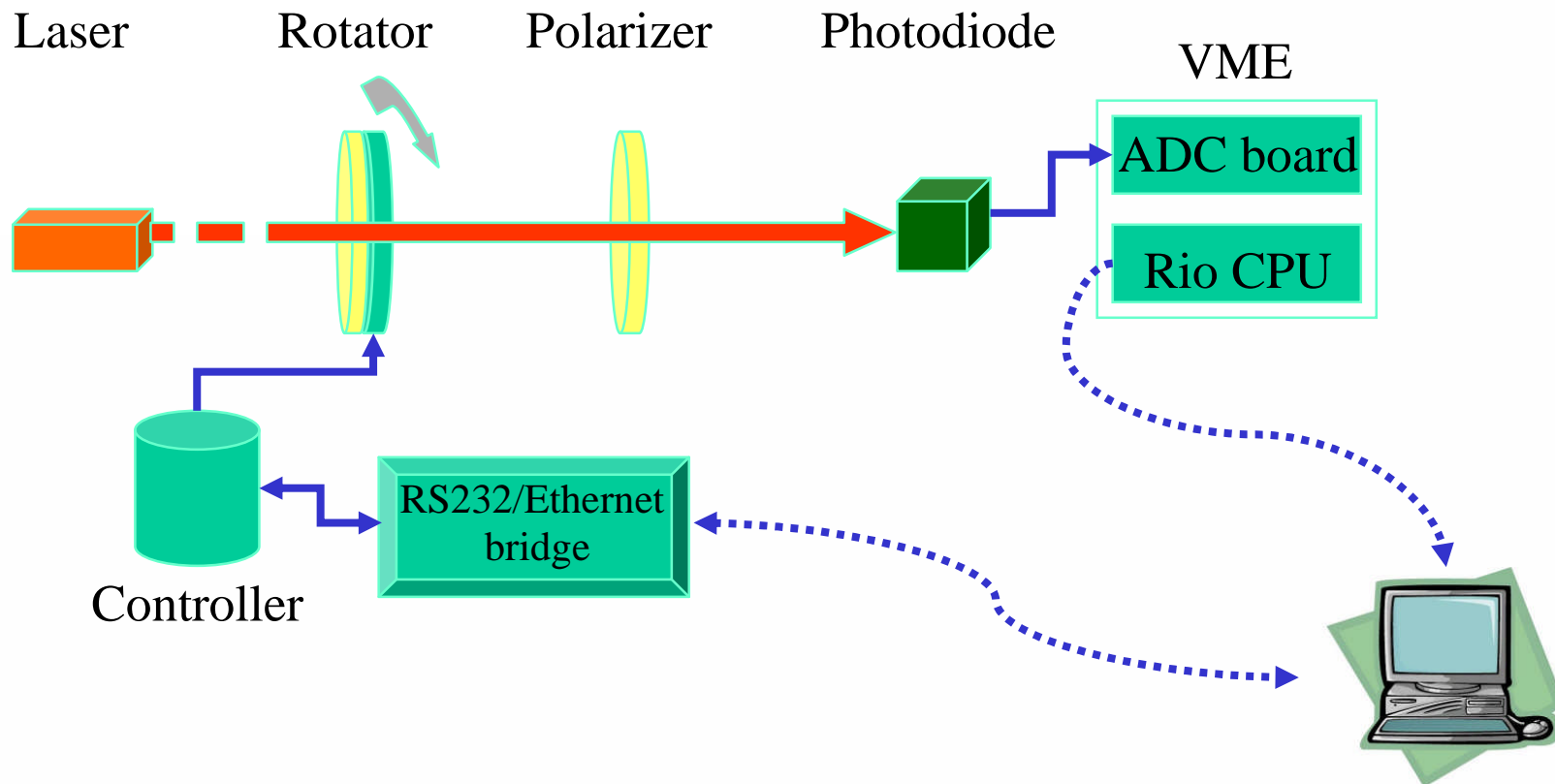


- open loop
- RS-232, 19200 Baud
- Venus language



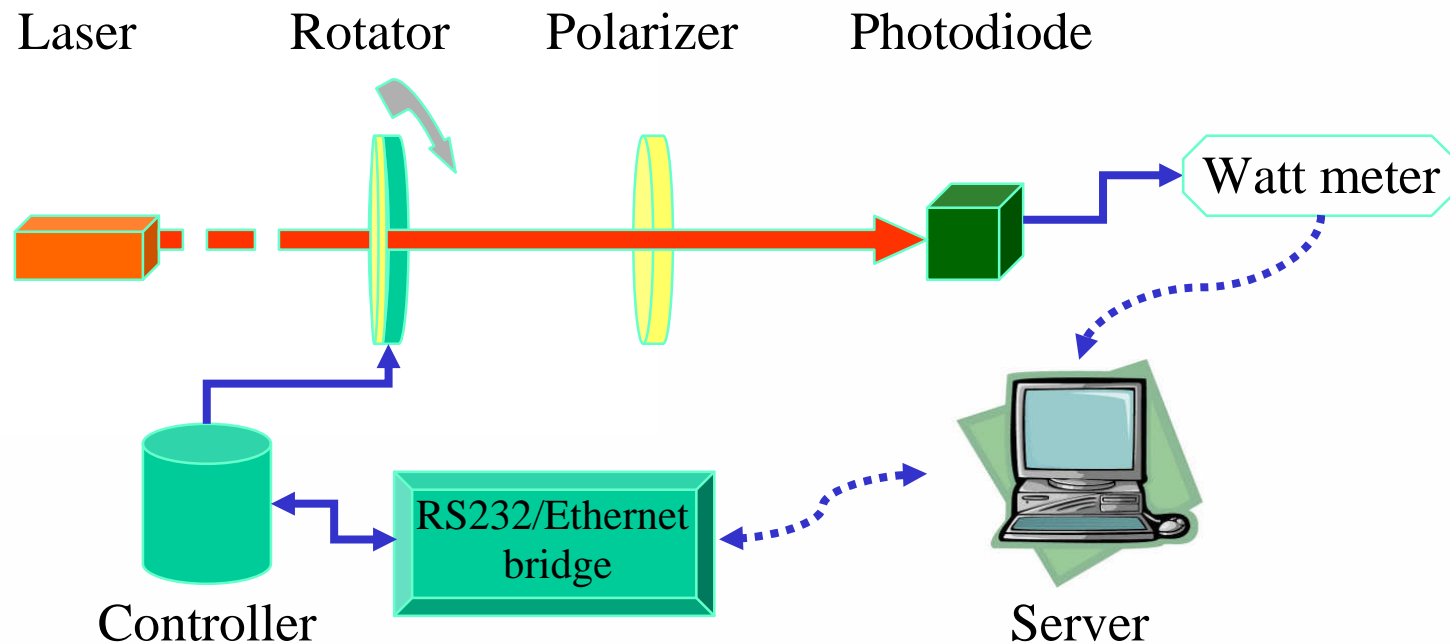
Data control & acquisition

- Tune laser power in a control loop





Preliminary test Set-up

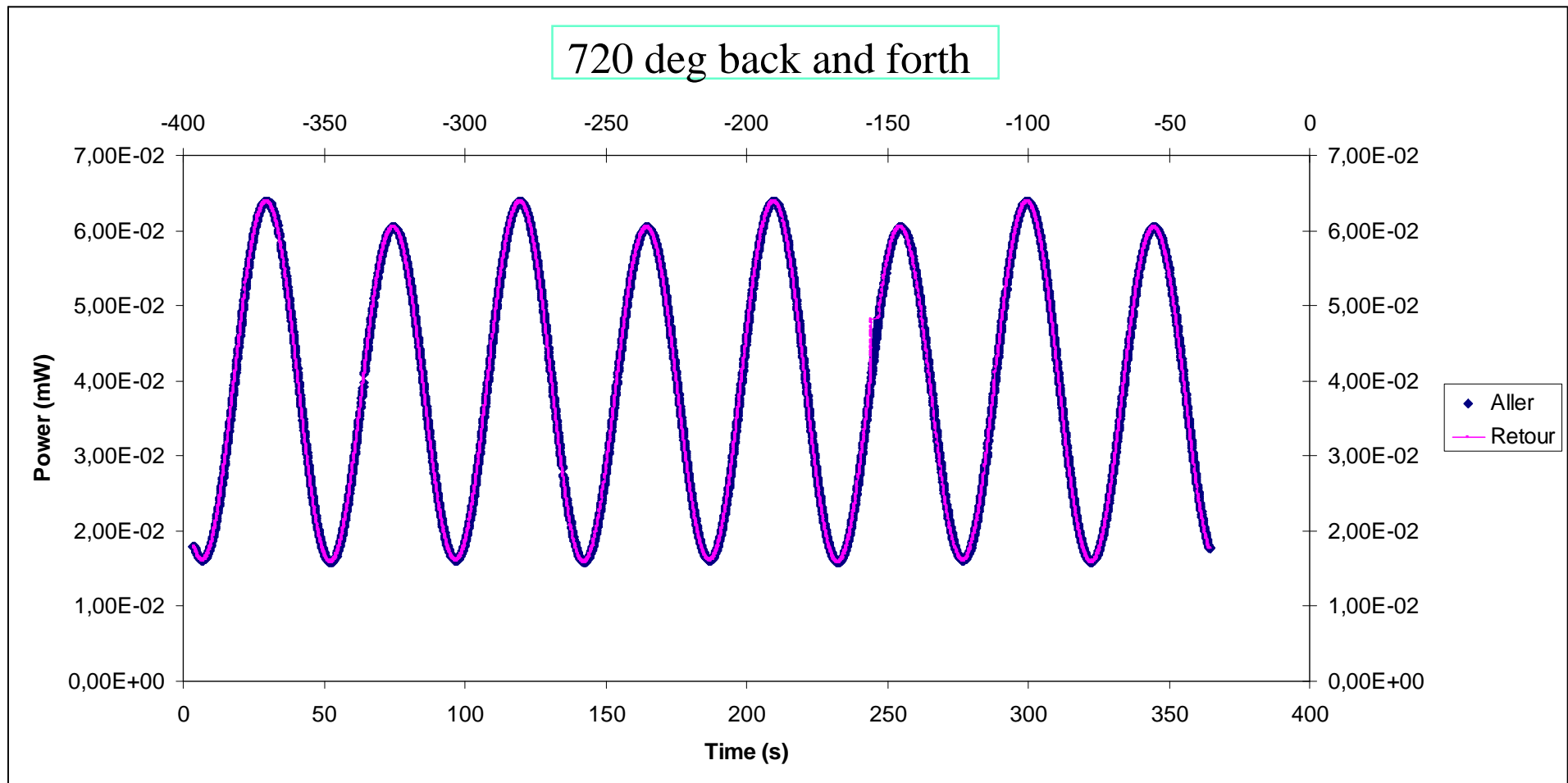


- Controller driver implementation → ActuatorDrv package
- Communication → ActuatorCom package
- Operation → ActuatorSrv package
- User → ActuatorEI.exe



Preliminary test results

- Hysteresis test





- Rotator power tuning fiability → Ok
- TBD :
 - Install data acquisition in the optics test facility
 - Test control loop (implement Alp macro)
 - dedicated control server (add in CtrlSrv)