Practical 2: Investigation of interference effects to include the Young’s slit experiment and interference by a diffraction grating

Part 1: Double slit separation

Contribution from Marcin Poblocki, Senior Physics Technician at Manchester Grammar School
Setting up the apparatus as in the diagram
The laser is now positioned...
...and illuminated
A measurement of the slit separation can be taken using vernier calipers, for example
Fringe width can be measured more easily in a darkened laboratory.
AS and A-level Physics practicals: Equipment set up

Practical 2 - Part 2: Diffraction with a plane transmission diffraction grating at normal incidence

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Contribution from Marcin Poblocki, Senior Physics Technician at Manchester Grammar School
The apparatus set up as in the diagram
Placing the diffraction grating perpendicular to the beam of light ....
...now seen in the correct position
Measuring distances with vernier calipers, for example, to allow calculation of angles