










❖ Fluid Lab

No	Device name	Device photo	Description of the Equipment
1	Hydraulics Bench		Hydraulic Bench is an important piece of equipment used in carrying out mechanical laboratory experiments especially those requiring water supply and determination of fluid flow.
2	Impact of a Jet		The equipment is to demonstrate and verify the integral momentum equation. The force generated by a jet of water deflected by an impact surface is measured and compared to the momentum change of the jet.
3	Hydrostatic Pressure		The hydrostatic pressure apparatus is to experimentally determine the hydrostatic force and the center of pressure of a vertical, submerged, plane surface.

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4	Flow Meter Demonstration		<p>The equipment is used to determine the coefficient of discharge for a venturi meter and an orifice meter.</p>
5	Osborne-Reynolds' Demonstration		<p>Osborne-Reynolds apparatus is used to study laminar, transitional, and turbulent flow.</p>
6	Open channel flume		<p>A recirculating open channel Flume is designed for testing and development of equipment for use in clean water. The flume has 5.7m long, rectangular channel 7.6mm wide with 300mm high glass sides. The facility is used to carry out development and testing work on open channel flow, velocity and level monitoring equipment. Flow rate can be calculated by using a scale tank with a stopwatch. The channel slope can be adjustable. This device consists of pump-rectangular channel made from glass- storage tank. When the device operated the flow transmits from the storage tank to the working section of channel then the water re-bake again through the outlet of channel to the storage tank.</p>



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7	Metacentric Height		Metacentric Height Apparatus is used to measure the metacentric height of a flat-bottomed vessel.
8	Bernoulli's Theorem Demonstration		The equipment is to investigate the validity of the Bernoulli equation when it is applied to a steady flow of water through a Convergent-divergent conduit.
9	Fluid Friction Apparatus		A mobile, vertical panel featuring various pipe configurations to demonstrate flow and losses in different pipes fittings and valves. Includes Pitot tube, Venturi and orifice meters for flow measurement.