10. VAPOUR PRESSURE (8 points) *(by J. Kalda, M. Heidelberg, E. Uustalu)* Measure the room temperature saturated vapour pressure of the unknown fluid in the syringe. The volume of the bottle is $V = 0.50\,\ell$, the inner diameter of the pipe is $d = 6.0\,\text{mm}$. Current air pressure p_0 and room temperature T_0 are written on the blackboard. There is no need to repeat the measurement after a successful attempt as getting the bottle free from vapours is time consuming. Estimate the uncertainty of the result.

Equipment: syringe with an unknown fluid, syringe with water, bottle, flexible pipe, ruler, plug, stand, tape.