Appendix 1: References

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[7] Strittmatter WJ, inventor; Duke University, assignee; Spinal puncture fluid collection apparatus. US Patent 5396899. March 14, 1995.

[8] Frenkel REP, inventor; Frenkel REP, assignee; Intraocular lens pressure monitoring device. US Patent 5005577. Apr 9, 1991.

[9] Ericson MN, McKnight TE, Smith SF, Hylton JO, inventors; UT-Battelle, LLC, assignee; Implantable device for in-vivo intracranial and cerebrospinal fluid pressure monitoring. US Patent 6533733. Mar 18, 2003.

[10] Borchert MS, Lambert JL, inventors; California Institute of Technology, assignee; Non-invasive method of measuring cerebral spinal fluid pressure. US Patent 6129682. Oct 10, 2000.

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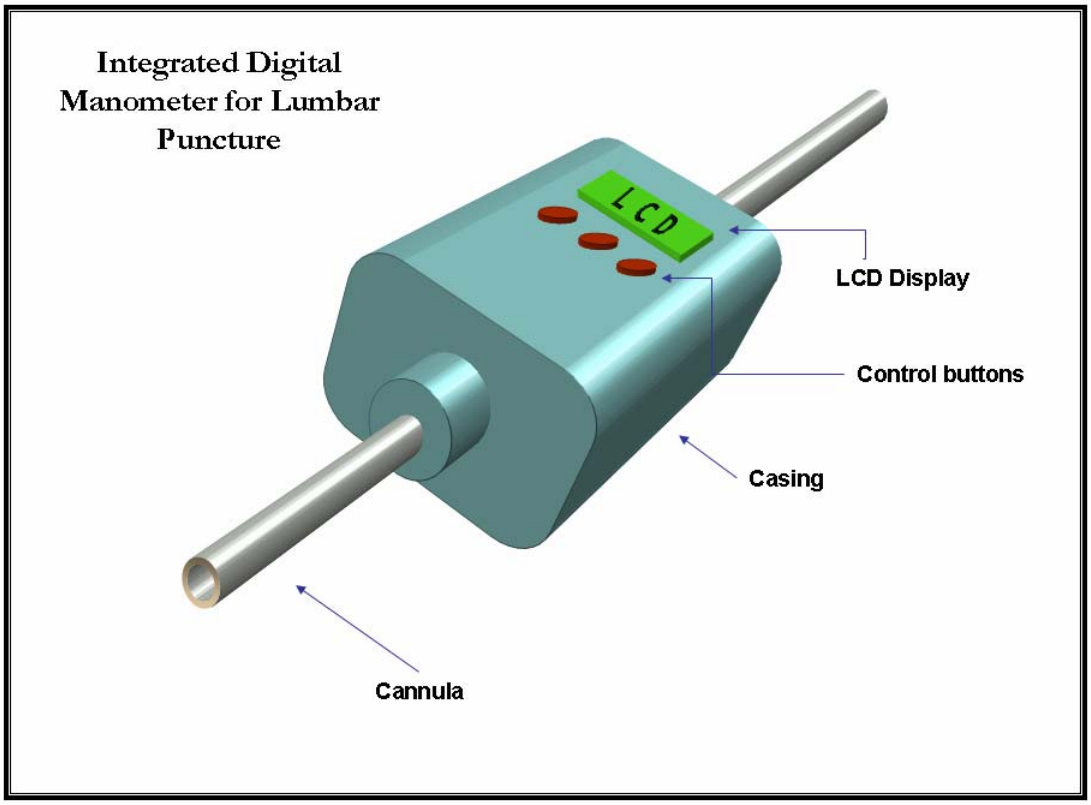
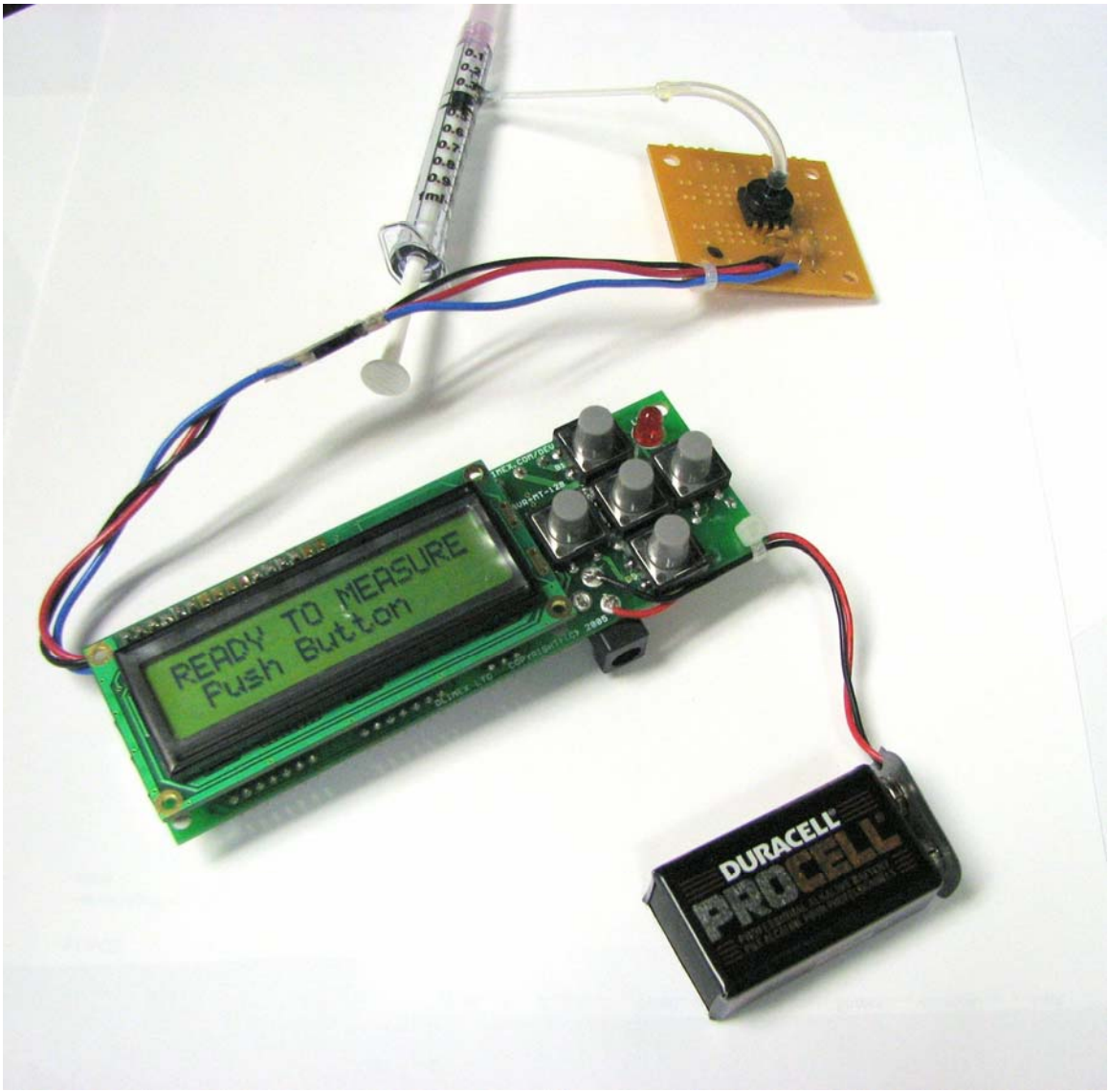
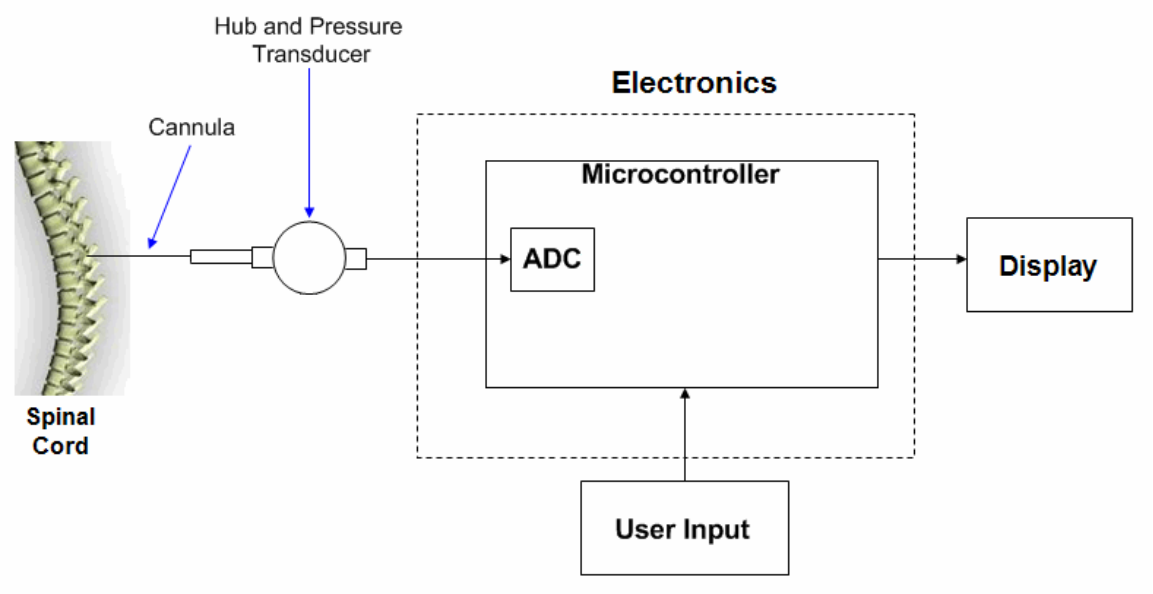
Appendix 2: Final Design



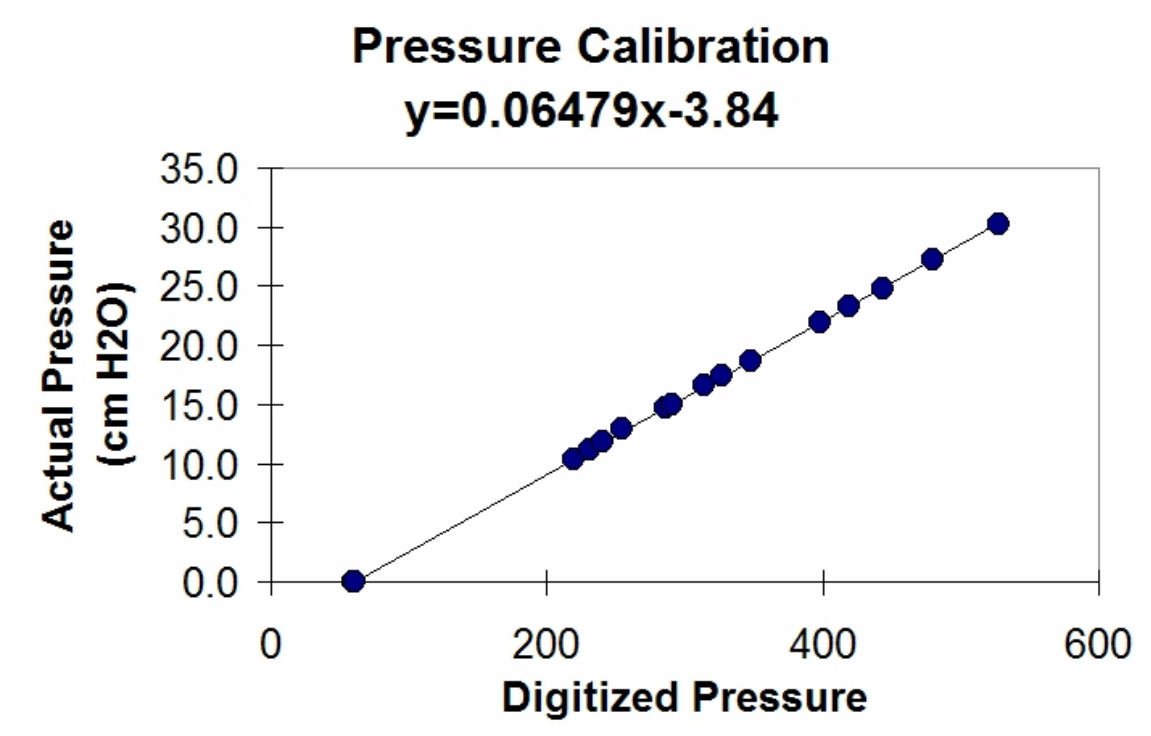
Appendix 3: Prototype Photograph



Appendix 4: Prototype Schematic



Appendix 5: Prototype Data Analysis



Appendix 6: Abstracts of related patents

[7] Strittmatter WJ, inventor; Duke University, assignee; Spinal puncture fluid collection apparatus. US Patent 5396899. March 14, 1995.

An apparatus used for performing a lumbar puncture to obtain a sample of cerebrospinal fluid. The spinal puncture apparatus is designed to interface with a sample container. A sample container apparatus is also disclosed, as is a kit for use in performing spinal puncture on a subject to obtain a sample of cerebrospinal fluid.

[8] Frenkel REP, inventor; Frenkel REP, assignee; Intraocular lens pressure monitoring device. US Patent 5005577. Apr 9, 1991.

The apparatus monitors intraocular pressure using an implantable intraocular lens which includes an affixed sensor apparatus for detecting the intraocular pressure.

[9] Ericson MN, McKnight TE, Smith SF, Hylton JO, inventors; UT-Battelle, LLC, assignee; Implantable device for in-vivo intracranial and cerebrospinal fluid pressure monitoring. US Patent 6533733. Mar 18, 2003.

This is a completely implantable intracranial pressure monitor, which couples to fluid shunting systems and other internal monitoring probes.

[10] Borchert MS, Lambert JL, inventors; California Institute of Technology, assignee; Non-invasive method of measuring cerebral spinal fluid pressure. US Patent 6129682. Oct 10, 2000.

Intracranial pressure is calculated non-invasively from eye measurements such as the intraocular pressure and a parameter of the optic nerve.

Appendix 7: Estimated Manufacturing Costs

COST ANALYSIS			
	UNIT COSTS		
	Est. Volume	Est. Prototype	Actual
ELECTRONICS			
Pressure Transducer	$ 8.00	$ 30.00	$ -
I/O (LCD, Buttons...)	$ 2.00	$ 40.00	$ -
Microcontroller	$ 1.50	$ 15.00	$ 85.00
Passive Components	$ 1.00	$ 5.00	$ -
Other Parts	$ 1.00	$ 5.00	$ -
Passive Components	$ 0.75	$ 2.50	$ -
Power Supply	$ 0.25	$ 5.00	$ -
SUB-TOTAL	$ 14.50	$ 102.50	$ 85.00
MEDICAL			
Hub / Syring	$ 1.00	$ 1.15	$ -
Cannula	$ 1.00	$ 1.30	$ -
Adhesive	$ 0.10	$ 5.00	$ -
Misc. Tubing	$ 0.10	$ 0.50	$ -
SUB-TOTAL	$ 2.20	$ 7.95	$ -
MANUFACTURING			
Unit PCB Assembly	$ 5.00	$ -	$ -
Labor	$ 0.60	$ -	$ -
Packaging	$ 1.00	$ -	$ -
Sterilization	$ 1.00	$ -	$ -
SUB-TOTAL	$ 7.60	$ -	$ -
MARKETABILITY			
Advertising	$ 5.00	$ -	$ -
Misc Costs	$ 2.00		
SUB-TOTAL	$ 7.00	$ -	$ -
TOTAL UNIT COST:	**$ 31.30**	**$ 110.45**	**$ 85.00**