The three Medical Instruments are :

TONOMETER :

Uses :

1. It is used to measure the pressure inside our eye which is called as Intraocular Pressure(IOP).
2. This measurement can help in determining whether or not you may be at risk of glaucoma.
3. It is used if one is experiencing with symptoms such as blurred vision, reddening of eye, tunnel vision etc which are symptoms of glaucoma.

Modifications :

1. A modified Goldmann or correcting applanation tonometry surface (CATS) prism is presented which was optimized to minimize the intraocular pressure (IOP) error due to corneal thickness, stiffness, curvature, and tear film.
2. A modification can be done, so that it can be used for detecting whether or not a person is suffering from astigmatism.
3. Non contact tonometers should be made affordable.

SPHYGMOMANOMETER :

Uses :

1. It is used for monitoring Blood Pressure.
2. It is used to detect whether or not a person at risk of High Blood Pressure or Low Blood Pressure.
3. It is also used to detect other problems such as faulty heart valves.

Modifications :

1. It can be modified in such a way that it can measure the strength of muscle.
2. It can be modified to measure the grip strength of Children aged 3 to 7.
3. It can be modified for the assessment of strength of upper limb muscles after stroke.

STETHOSCOPE :

Uses :

1. It is used to hear the heartbeat sounds, sound due to inhalation and exhalation of air in the lungs and the respiratory pathways and also the stomach movements.
2. Stethoscopes can indicate fluid in lungs in case of pneumonia and pulmonary edema. It can diagnose airway diseases like bronchitis and pleuritis.
3. Stethoscopes are also used to compare the movements in the normal versus overactive or underactive intestinal tract.

Modifications :

1. Modifications can be done so that it can be used to a patient's heart and lung clearly even in high noisy environments and even through layers of clothing.
2. It can be modified to auscultate the temporomandibular joint (TMJ) sounds more precisely than conventional stethoscope.
3. It can be modified to hear the foetal sounds in mother’s womb.