

heartbeat music watch
Yunji Kim

Ultrasound



an image of a newborn



working

The ultrasound machine uses high frequency sound waves to create an image of the fetus in the womb.

The ultrasound machine is used to monitor the fetus's growth and development during pregnancy.

The ultrasound machine is used to monitor the fetus's growth and development during pregnancy.

My proposal

The university of the future

This is a proposal for a new university building.



It will be a modern building with a lot of glass and a lot of greenery.

in the gallery...

- 1st floor: 1st floor
- 2nd floor: 2nd floor
- 3rd floor: 3rd floor
- 4th floor: 4th floor



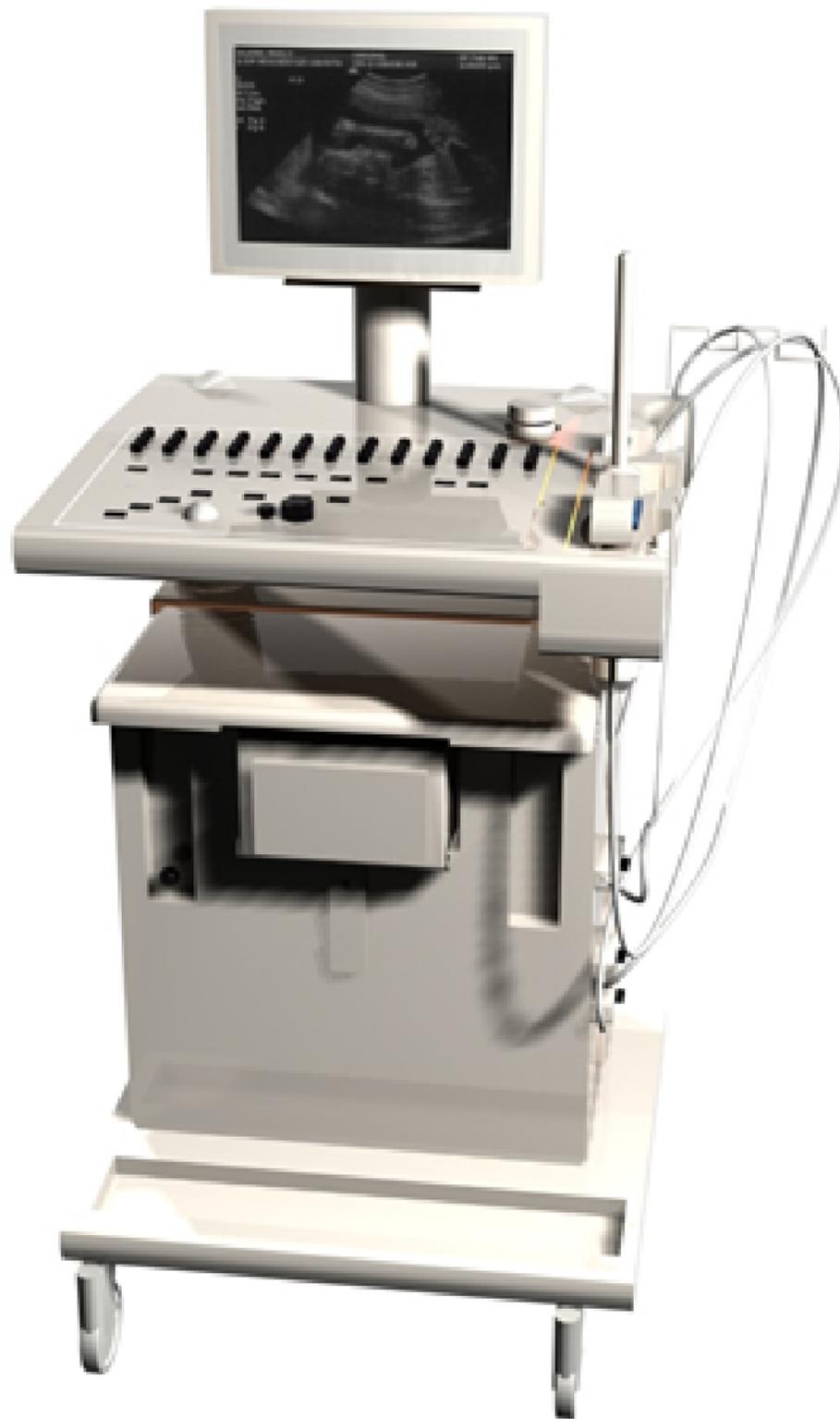
Heartbeat MUSIC MATCH

Yunji Kim

Technology:

technology:

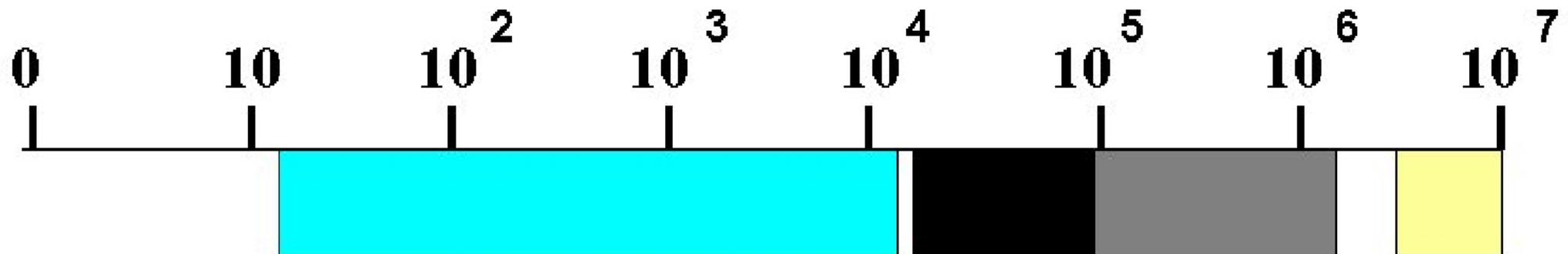
Ultrasound



What is an ultrasound?

Ultrasound is a procedure that uses high-frequency sound waves to view internal organs and produce images of the human body. The human ear cannot hear the sound waves used in an ultrasound.

THE FREQUENCY RANGES OF SOUND



Human hearing



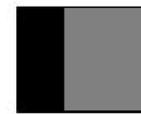
16Hz - 18kHz

Conventional power ultrasound



20kHz - 100kHz

Extended range for sonochemistry



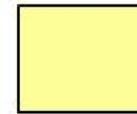
20kHz - 2MHz

Diagnostic ultrasound



5MHz - 10MHz

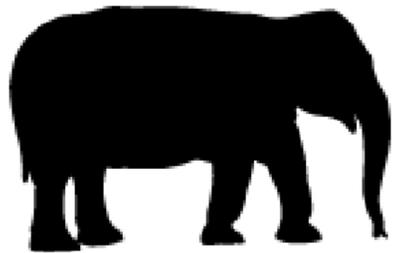
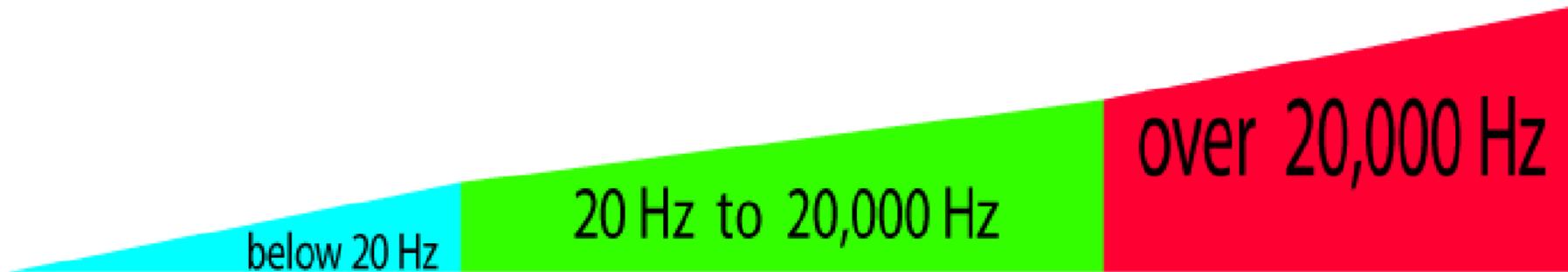
Diagnostic ultrasound



5MHz - 10MHz

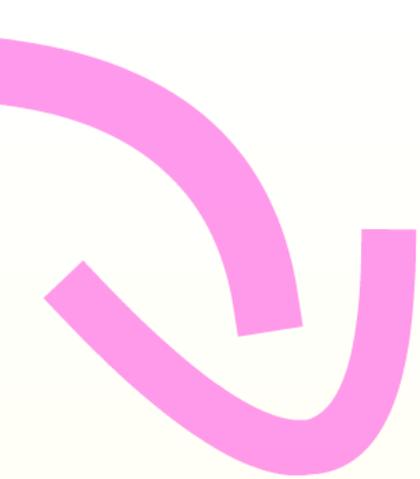
INFRA SOUND

ULTRA SOUND



conventional use:



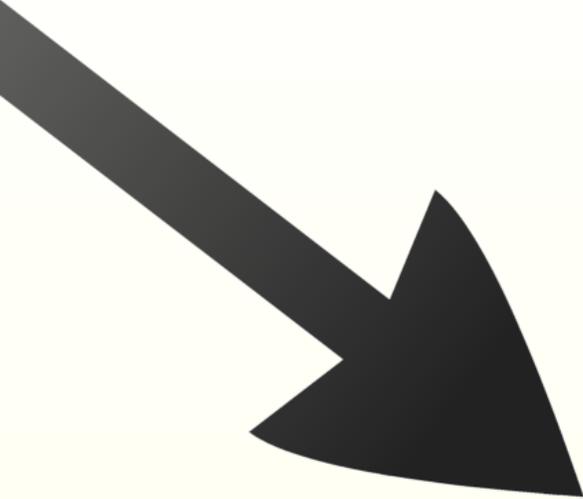


For a fetus in a womb

HOW it's used

A medical sonography generates a sound wave, bounces it off an organ and records the returning sounds.

The Ultrasound
employs a high
frequency of sound
that travels from a
transducer through the
skin and into the body



The
ultrasound
picks up the
heart beat
of a fetus
and shows a
small flicker
on the
screen.

On an average person, the ultrasound can display his/her heart valves opening and closing while amplifying the sound of both the heart valves and the heart beat

sonogram of a normal heart



My proposal:

The ultrasound
can detect the rate
of a beating heart.

Thus, once a viewer records their heartbeat, the computer will then take that



the computer will then
take that

&

calculate the
minute) to find
itunes (in the
music genre)
rhythm/beat
heart rate.

calculate the BPM (beats per minute) to find a song on itunes (in the preferred music genre) with the same rhythm/beat of the viewers heart rate.

in the gallery...

ound machine



- Ultrasound machine

- Projection fr

Ultrasound machine

- Projection from the Ultrasound

Equal soundwaves in
accordance with the
participants' heart rate

- Projection from
- Visual soundwaves in accordance with the participants' heart rate
- Itunes

formance with the
participants' heart rate

- Itunes
- Surround sound speakers



Gallery Simulation

