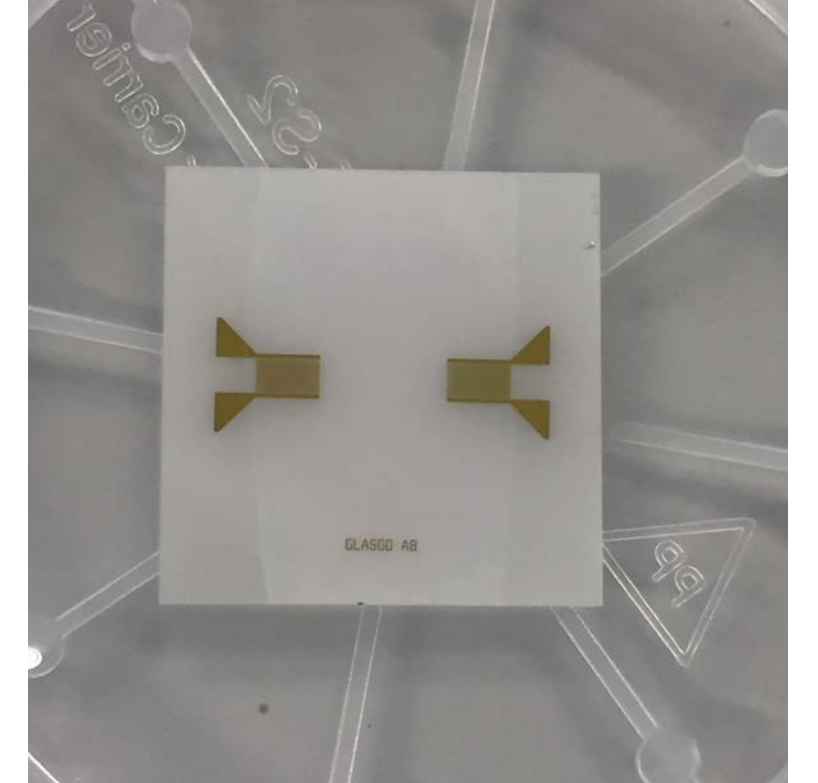
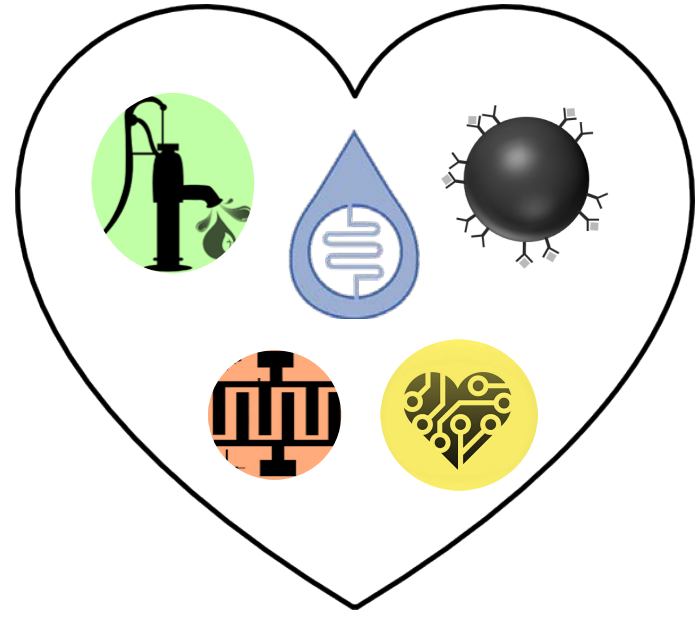


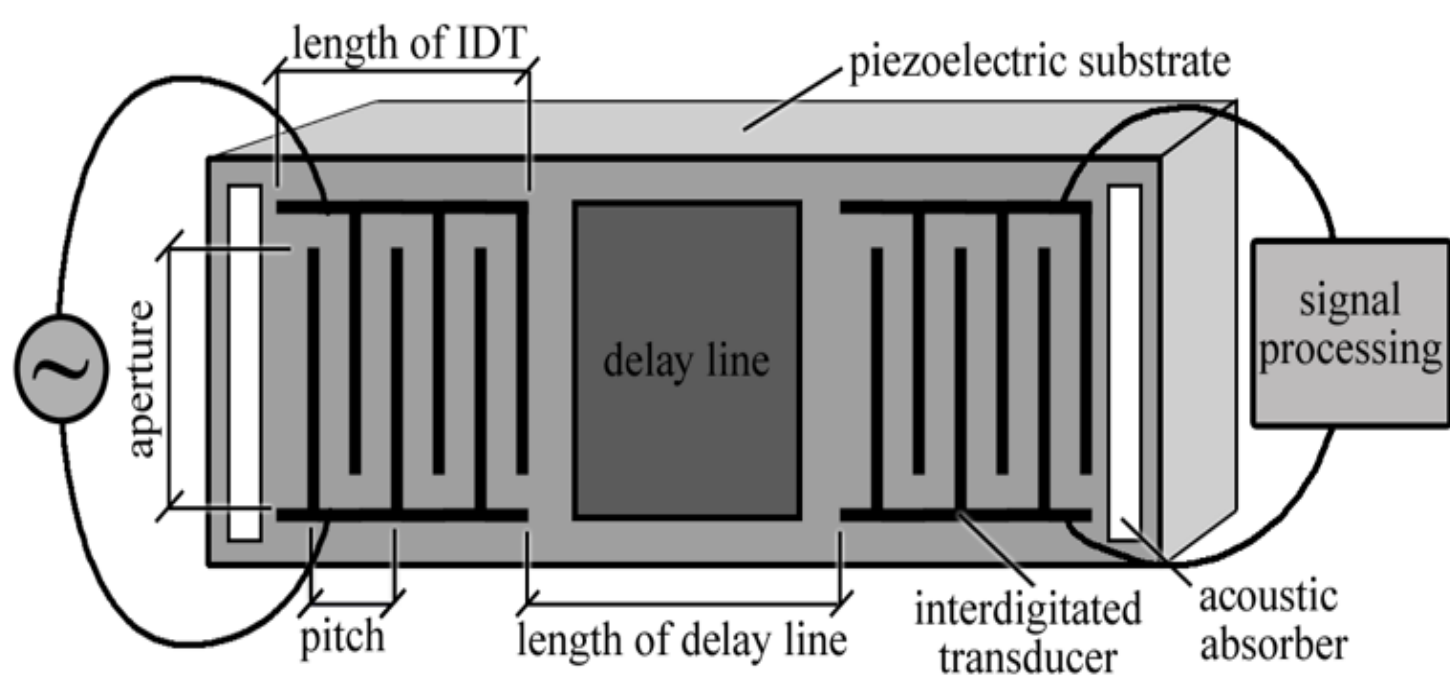
Love Waves Biosensor

The Components

- Love wave sensor
- Microfluidic cartridge
- Magnetic Beads
- Microfluidic pump
- Electronics and power input

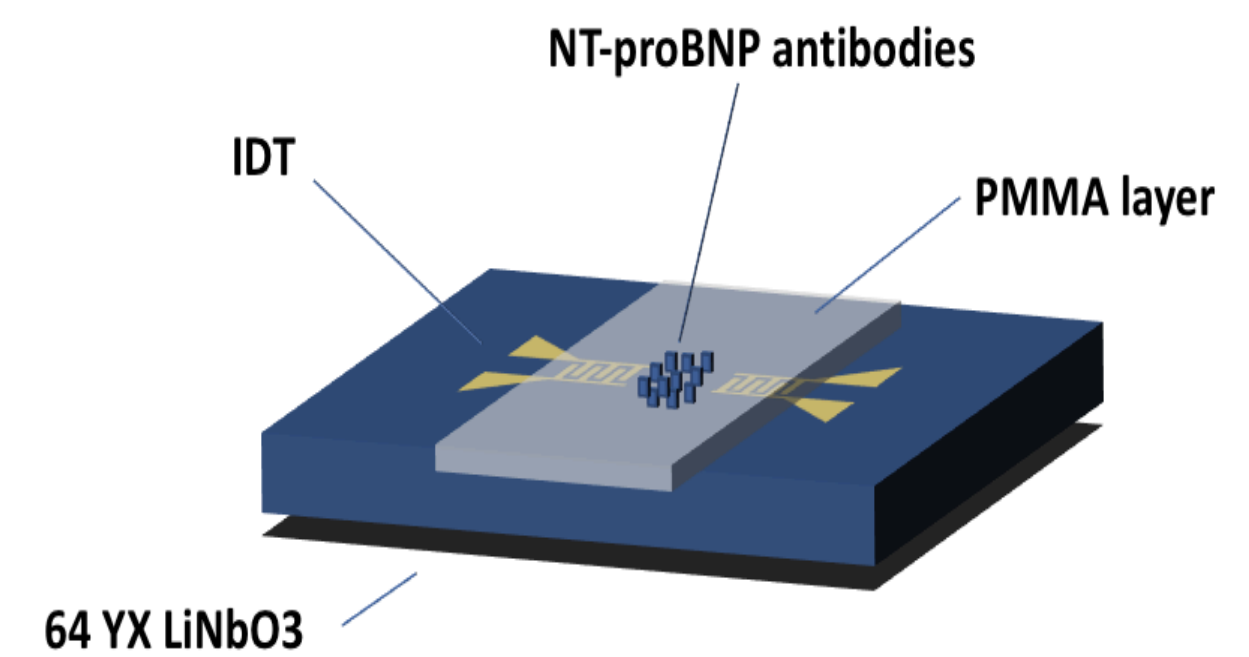


SENSOR components



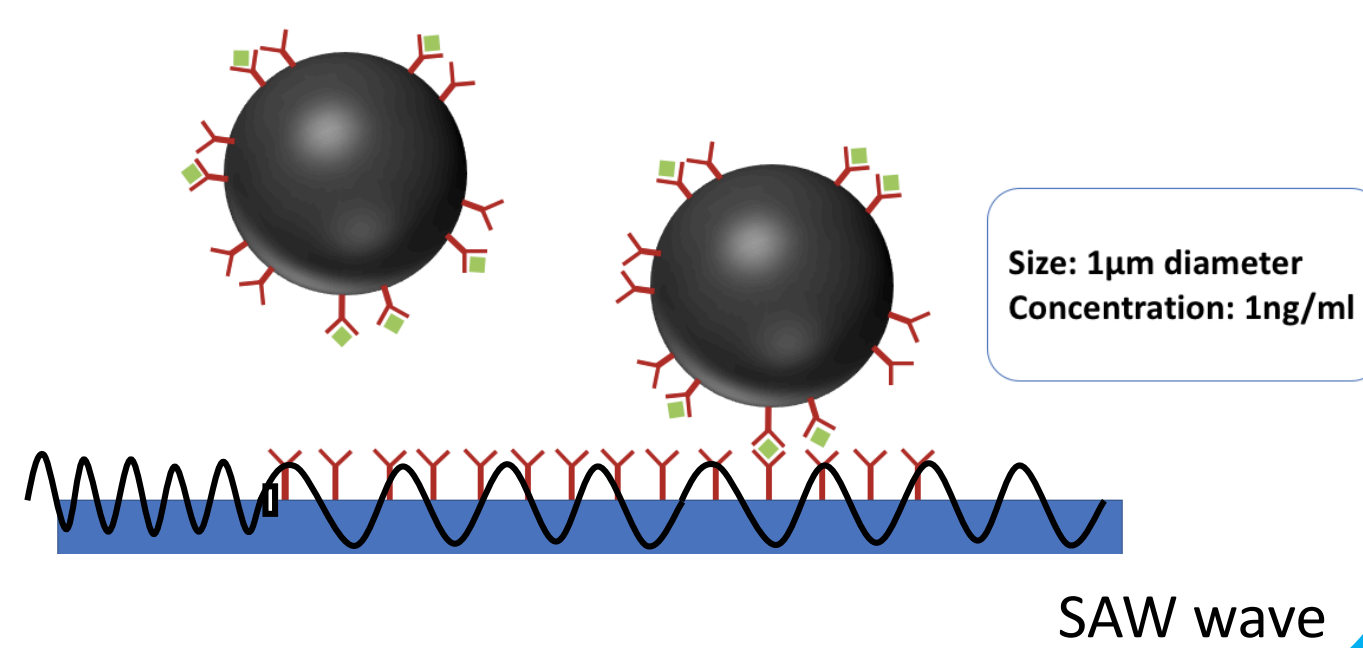
A Love wave sensor is a surface acoustic sensor that has a **second layer** of material above the substrate, the guiding layer or **waveguide**. The waveguide helps transform the shear horizontal acoustic waves (SH-SAW) to Love waves. [1]

Functionalised and ready to detect

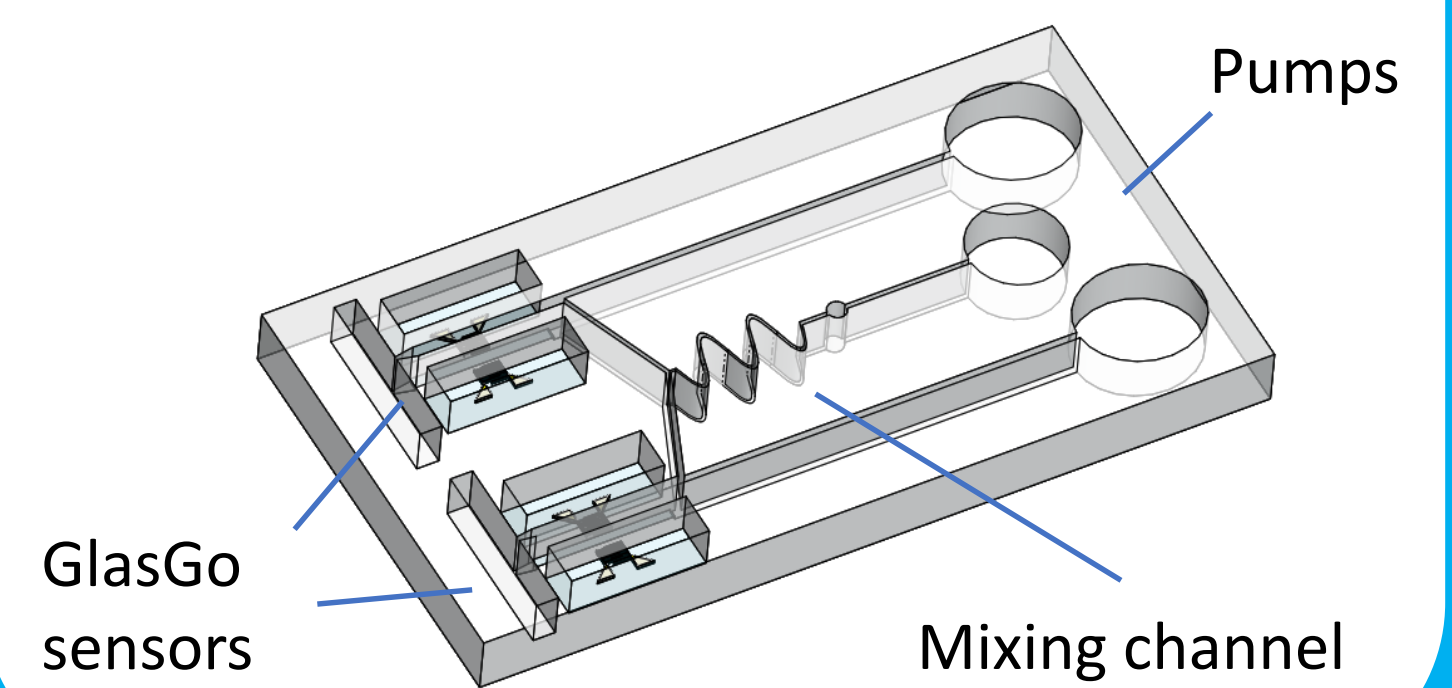


We use magnetic microparticles in order to improve the limit of detection of the sensor from a few hundred ng/ml down to a few pg/ml. [2]

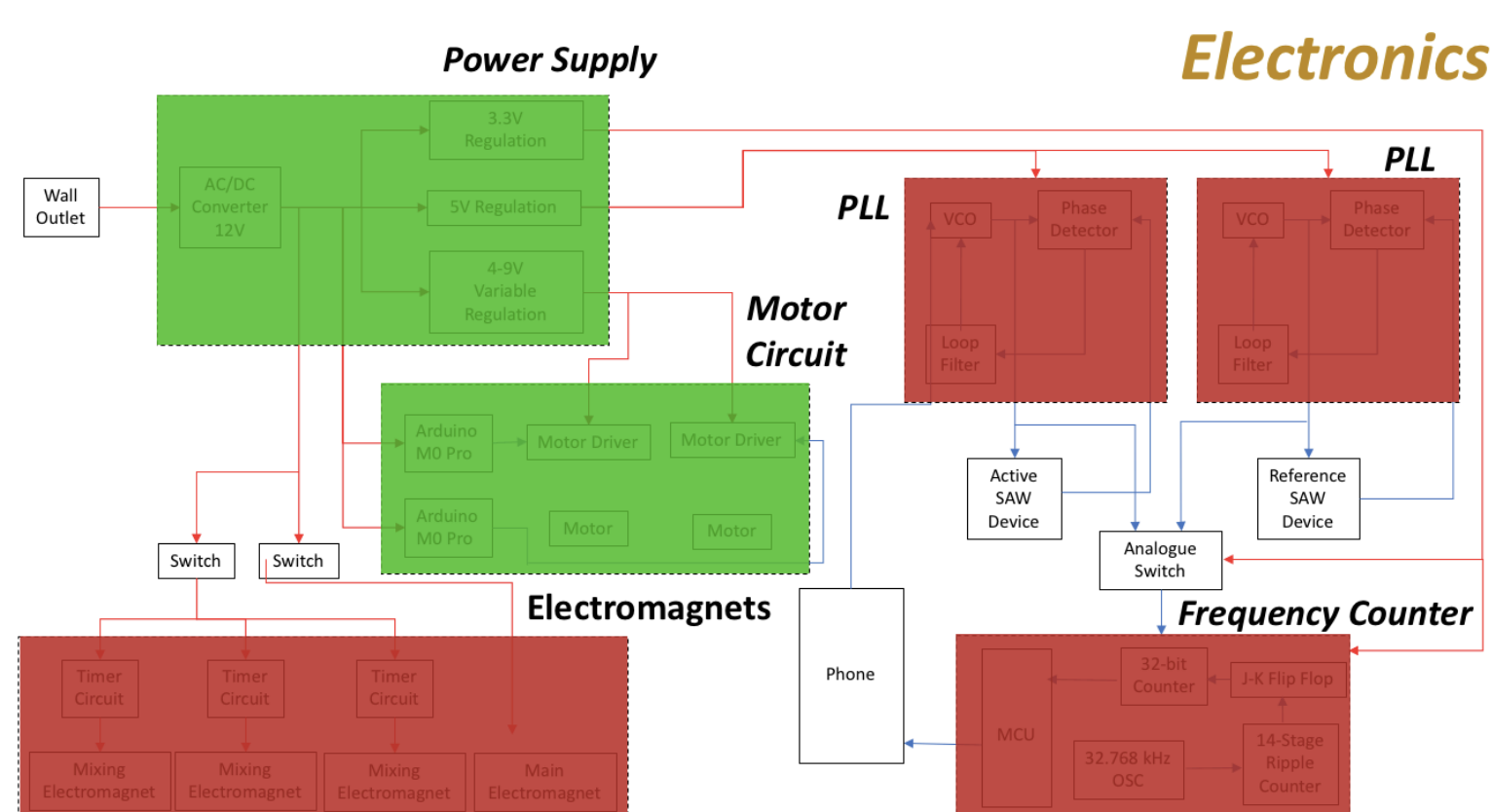
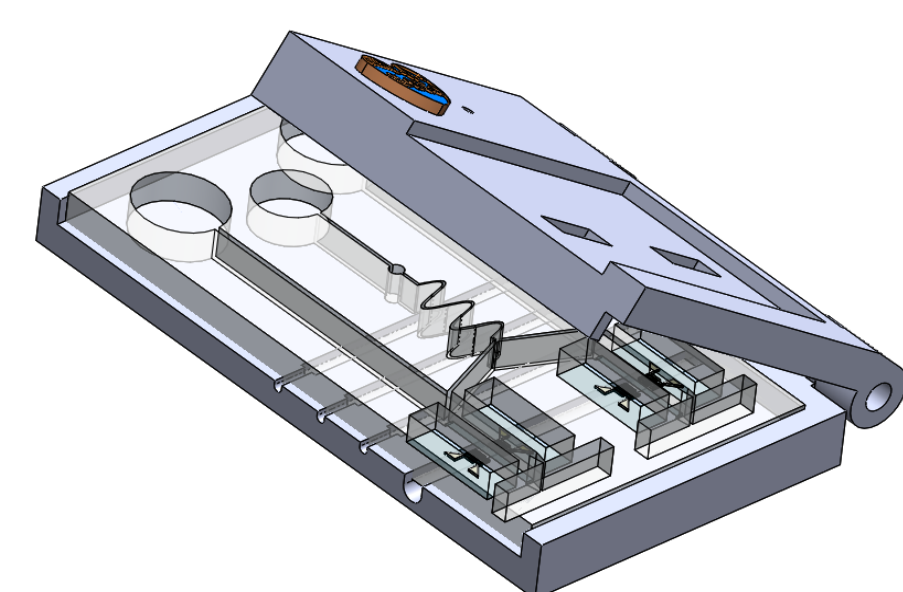
Use change in weight on the delay line to obtain signal
Magnetic Microparticles



Plasma delivery through the MICROFLUIDIC CARTRIDGE



Slide in case and connect the **PUMP** to reservoirs



The electric circuit creates a loop searching for the resonant frequency of the device. A frequency and phase change is produced when the weight is changed by the NT-proBNP binding.