Continuous force 3 mins or so

Tapping about 5 times (either low or high force)

Some some oscillation

10 seconds nothing

10 Newton sensor ->

Hardly any reading when you press next to the sensors

Red = raw sensor data, needs to be mapped to force values

Pressure chamber calibration is used for that

There’s a rhesus curve for the raw sensor data to the actual force

We can give it “clean” data

Permanent load performs well for the 10N sensor, good stability/consistency

Pressures measured is much lower that the actual pressure applied -> silicon

FH500 -> Force gauge (reference force)

LIN -> actual force

RAW -> sensor data

Subtract exactly 5 seconds from the Force Gauge Measurements! Then it’s aligned

Experiments

Finger

Artificial finger

Rope/string

Band

Fist

Noise seems more present when force is applied with a higher surface area

Depth about 1mm

In between fat and muscle (1-3 mm above the muscle)

There’s also negative pressure -> pull (limited range)

Finger has radius of 10

For modelling :

2 mm of skin

Couple mm of fat

muscle

Pictures -> fat (Gel) -> skin (00-30) -> muscle (10 med)