

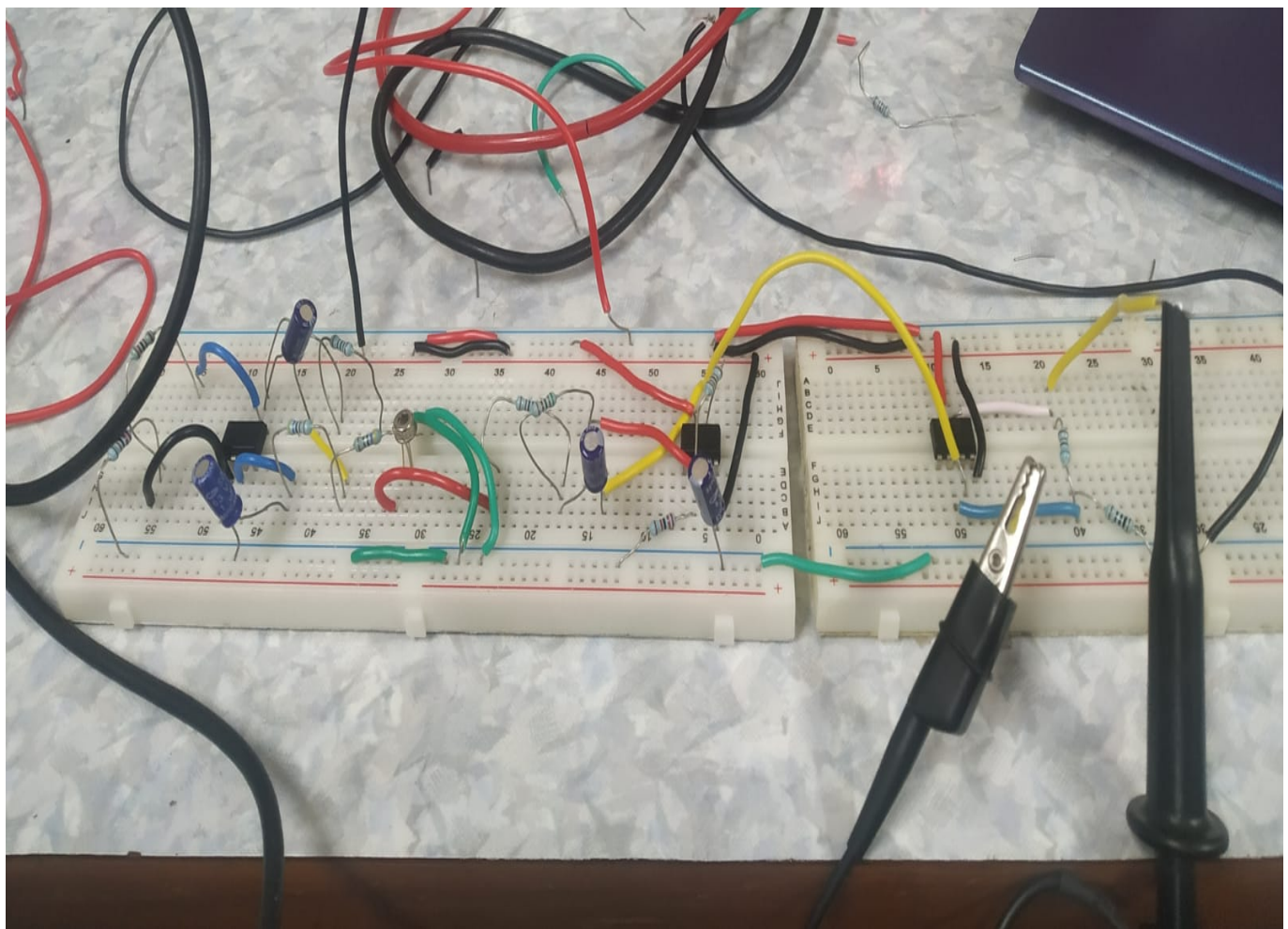
EE344
Electronic Design Lab
Lab Report
TUE-JJ-9-1

Mayur Ware, 19D070070
Siddhant Shingade, 19D070057
Rushikesh Metkar, 19D070034

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Sensor Circuit :

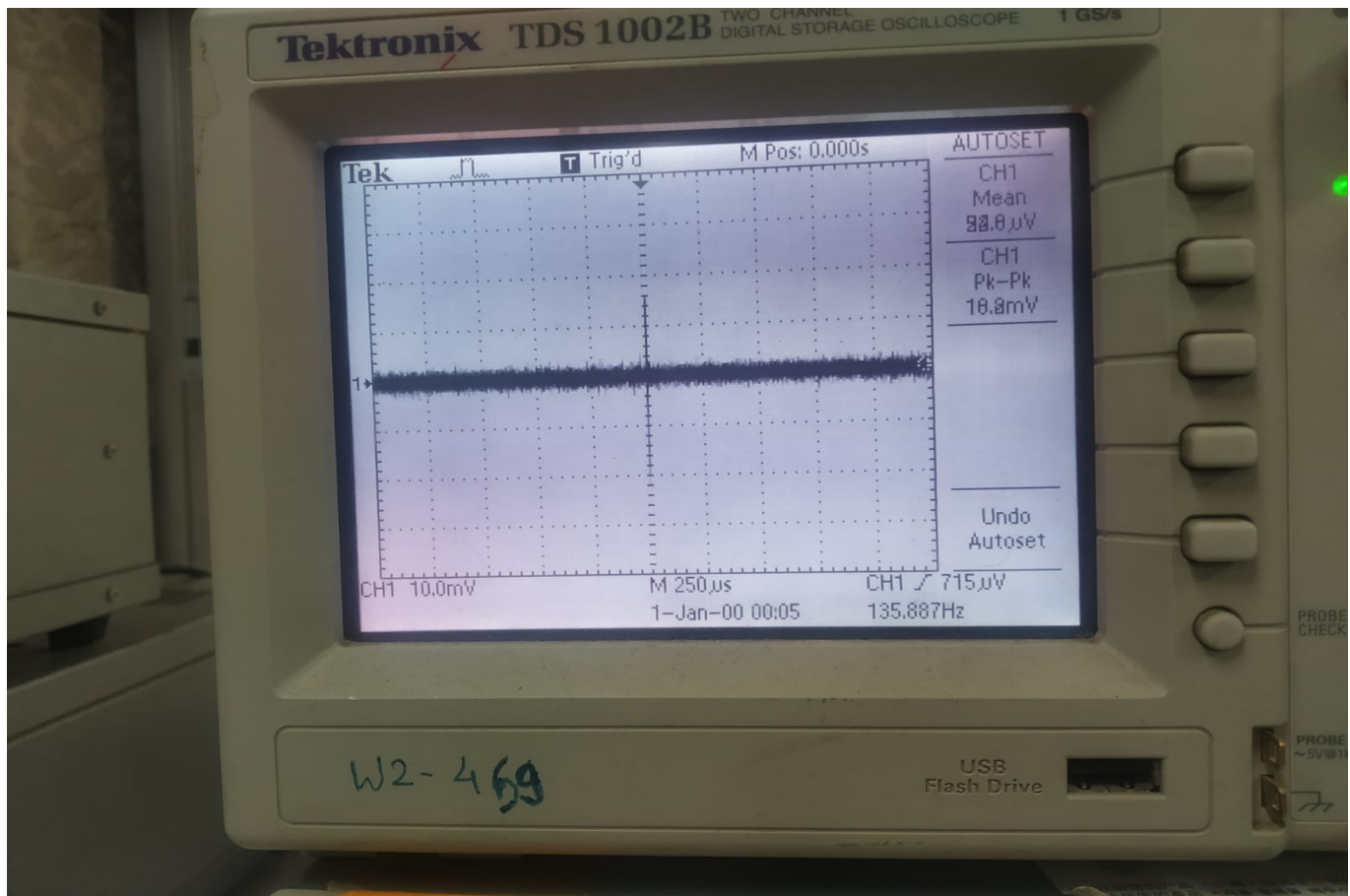
Today, we made the circuit to check the output of our sensor. The circuit for the same is,



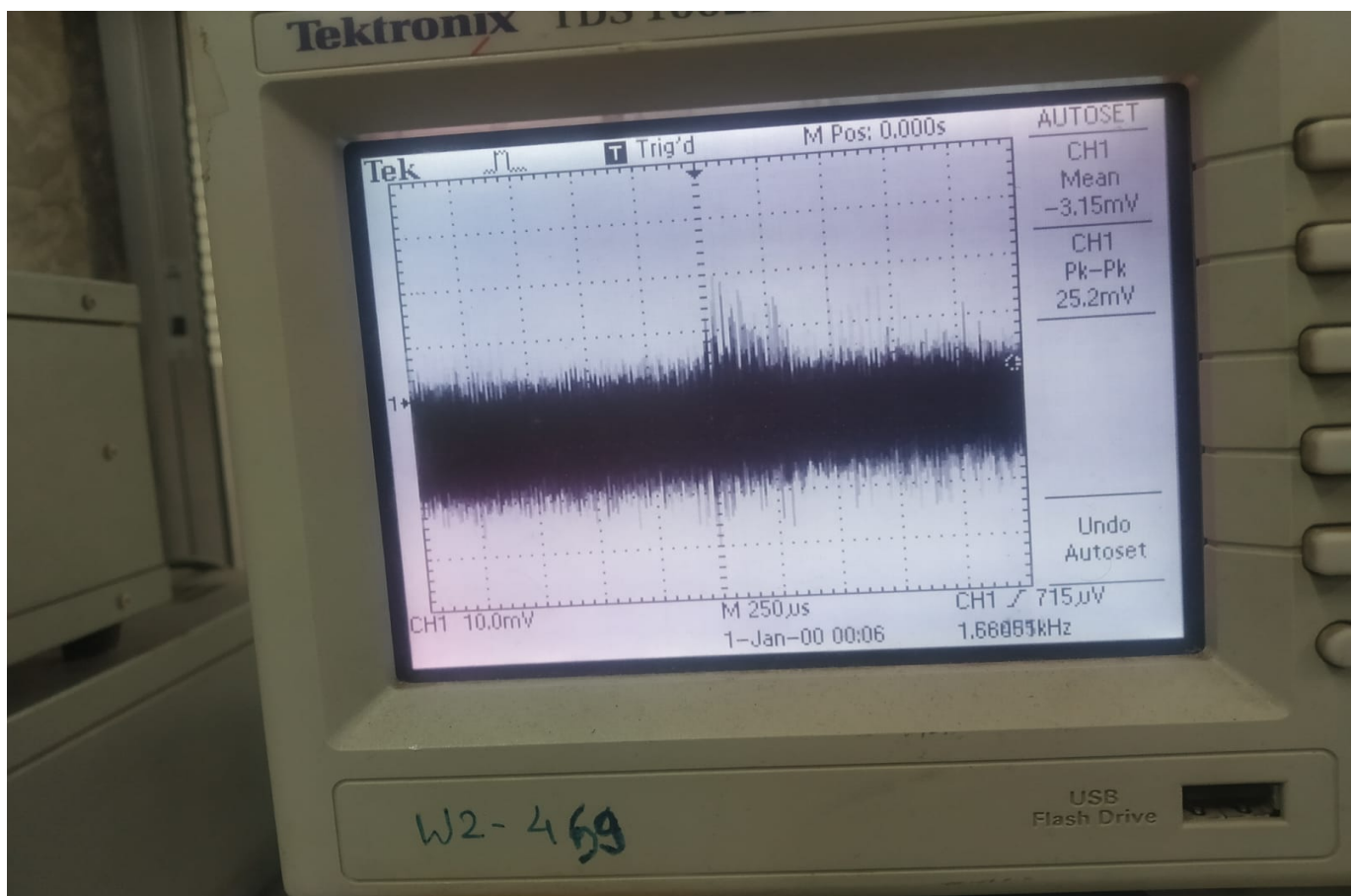
We tested the outputs of this setup in varying conditions using the Digital Multimeter and Digital Oscilloscope.

Without Low Pass Filter :

At room temperature conditions,



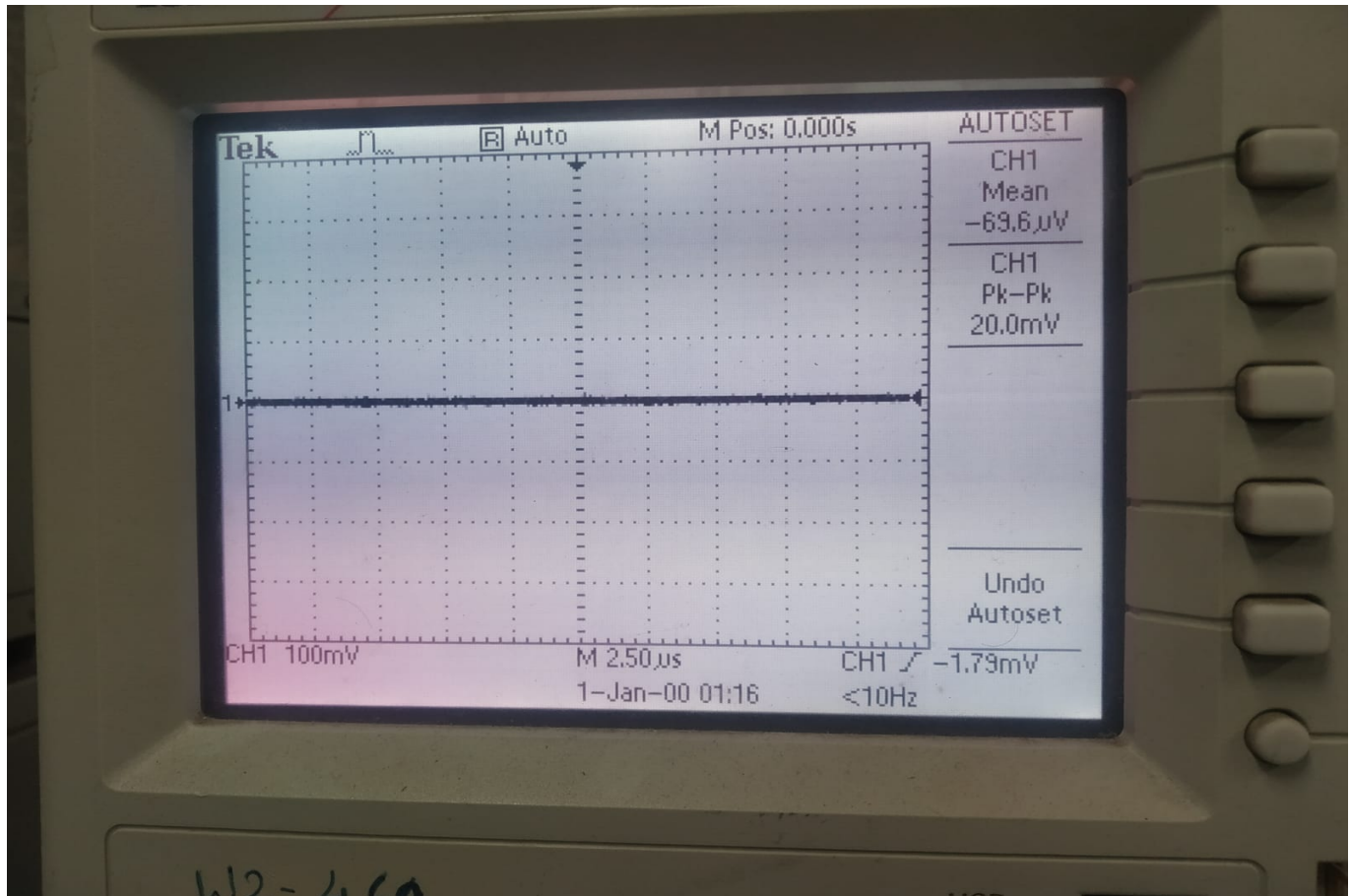
Noise can be seen in the waveform, mean output was around $100\mu\text{V}$.
Now, After varying temperature (touching sensor with a fingertip),



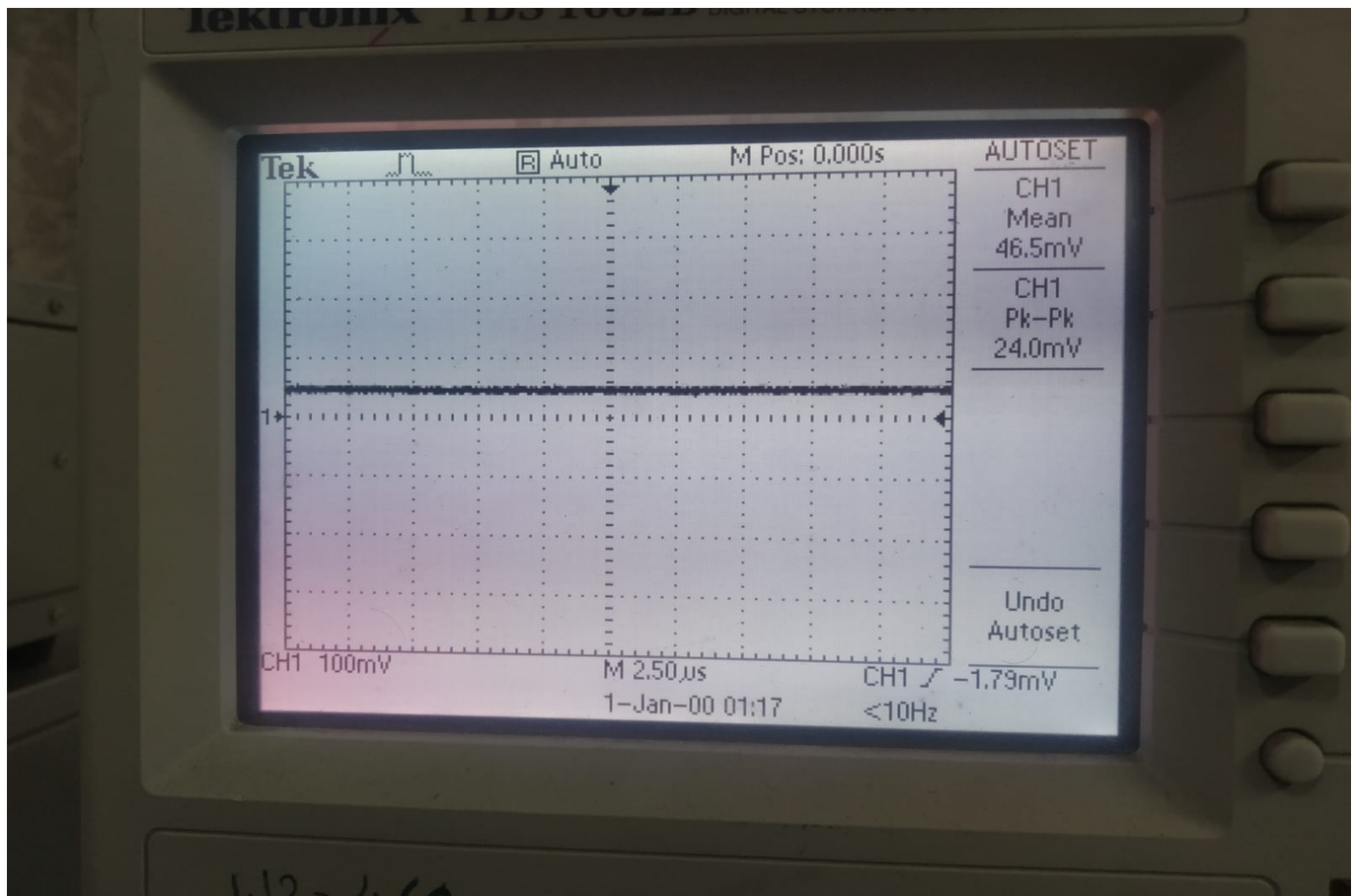
Much increased noise can be seen in the waveform. Mean output was around 3.15mV . **With Low Pass**

Filter :

Now, we applied low pass filters of $1\mu\text{F}$. At room temperature conditions,



Noise levels have been decreased significantly, mean output was around $70\mu\text{V}$.
Now, After varying temperature (touching sensor with a fingertip),



Here too, noise level is lowered. Mean output was around 46.5mV (after making some changes in the circuit configuration).