Chart, scatter chart

Description automatically generated

Actual issue: offset

Graphical user interface, chart, histogram

Description automatically generated

Method1: offset channel by 1.5 V

Graphical user interface, application

Description automatically generated

Method 2: use a pot between VCC- (pin4) and v- of the power supply, and adjust it until its in the middle

Graphical user interface, application

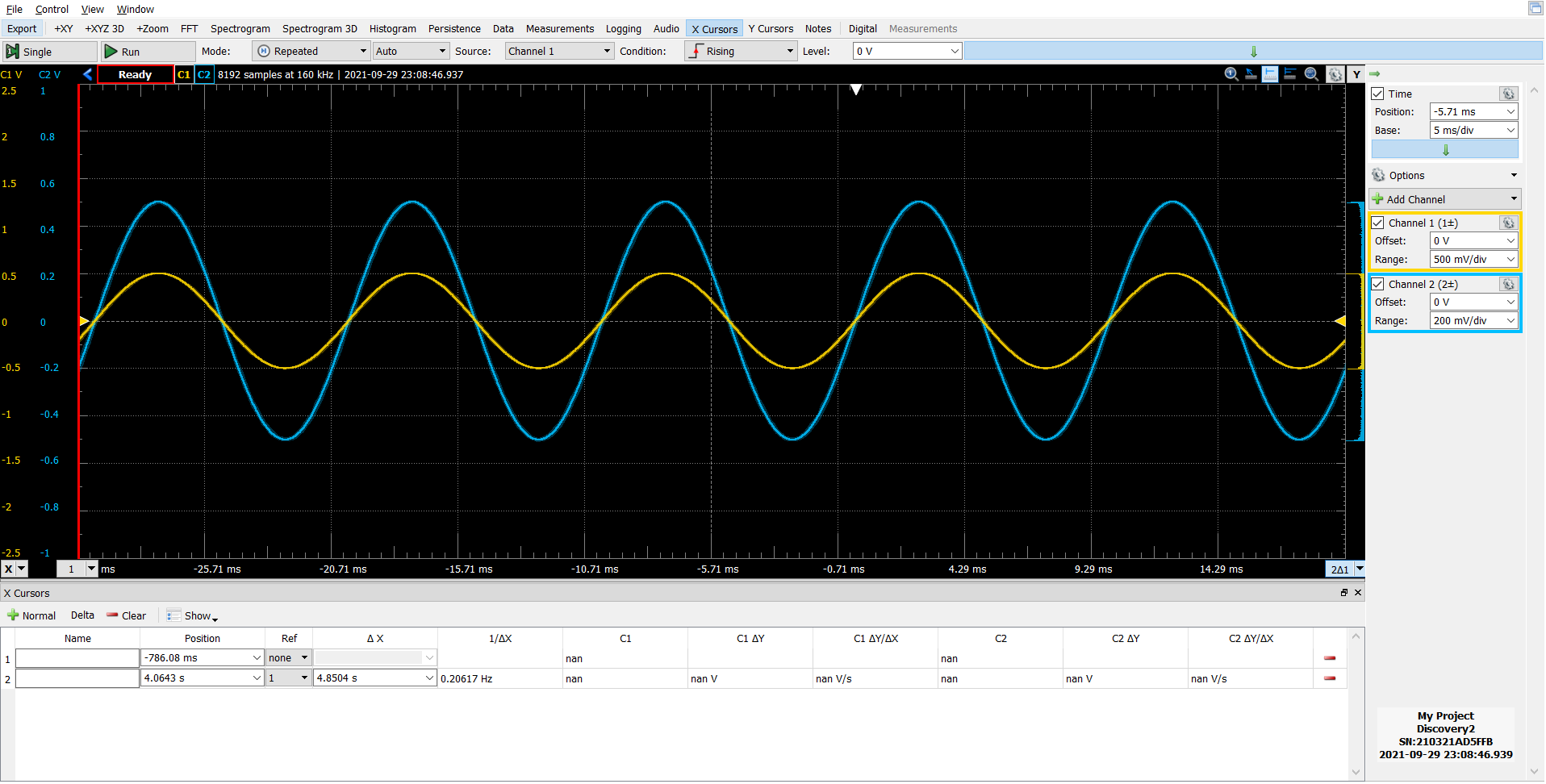
Description automatically generated

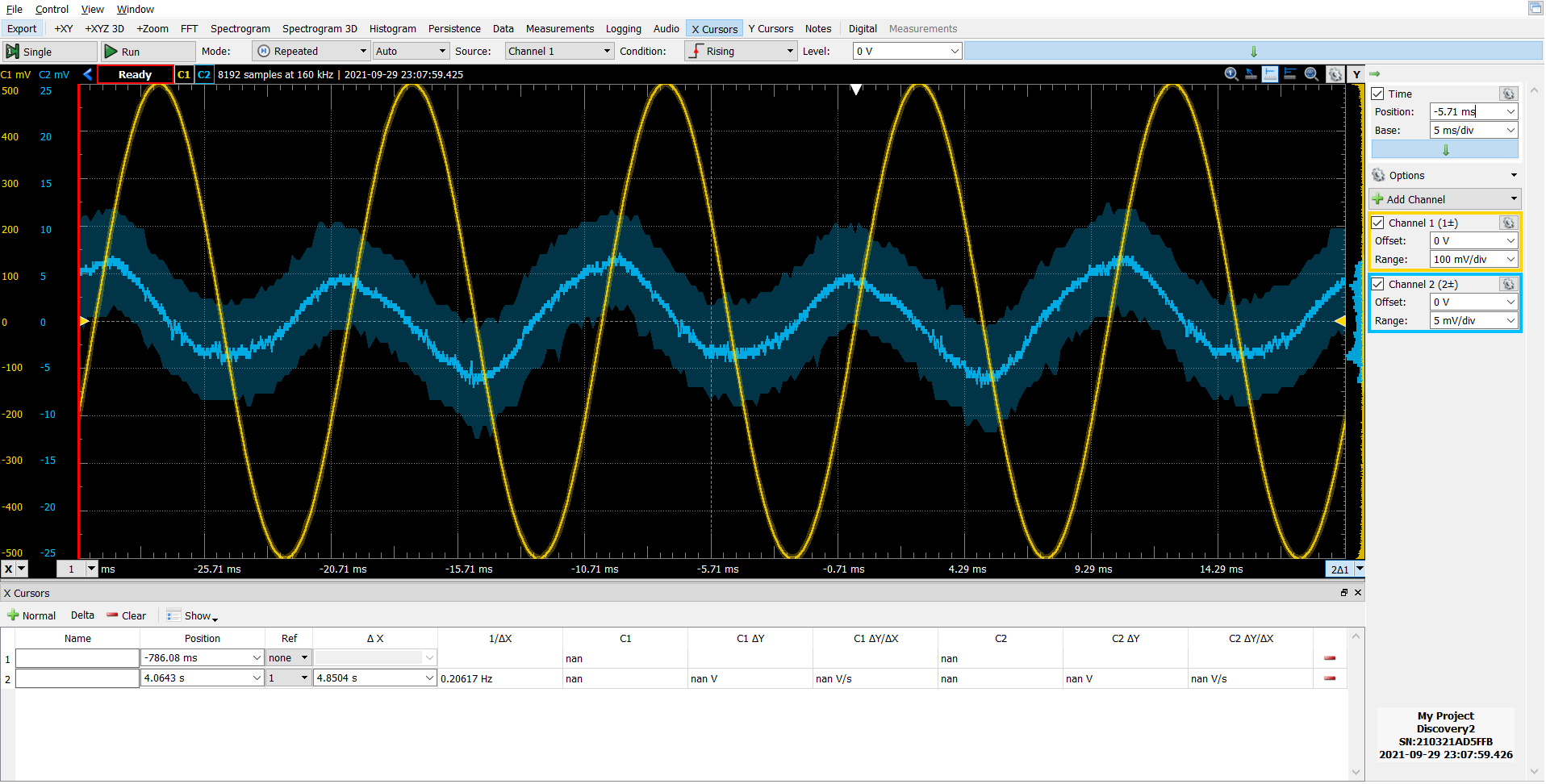
Different problem

It doesn’t work cause cutoff frequency is too low.

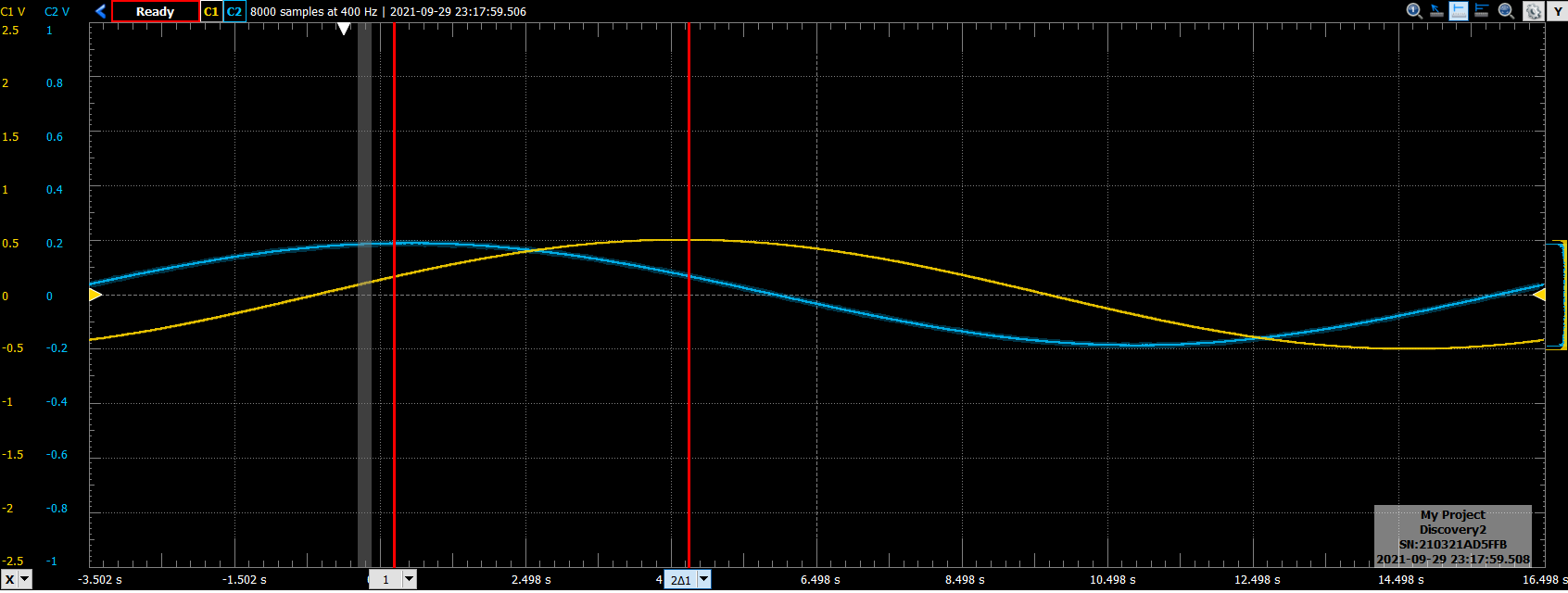
To make it work, either reduce capacitor/resistor or both

Or reduce the frequency of the input signal to significantly lower number



choosing a 10pico farad capacitor and 1 ohm resistor seems to work. The output signal does need to be amplified though.

Second method:



Task 9

Vout is a bit scaled as expected due to scaling factors and factor which arises due to differentiation

Chart

Description automatically generated

Graphical user interface

Description automatically generated

Task 10

Chart

Description automatically generated

10,20,40 Hz, amplitude of 1V

Non-inverting

Chart

Description automatically generated

**NEED TO DO ARDUINO PART**

Task 11

1. passes when signal is negative and makes it +veChart, line chart

   Description automatically generated
2. Full wave rectifier, but output is -|input| and second part also provides some gain

Chart, line chart

Description automatically generated

Graphical user interface, text

Description automatically generated