

# PORTABLE OSCILLOSCOPE



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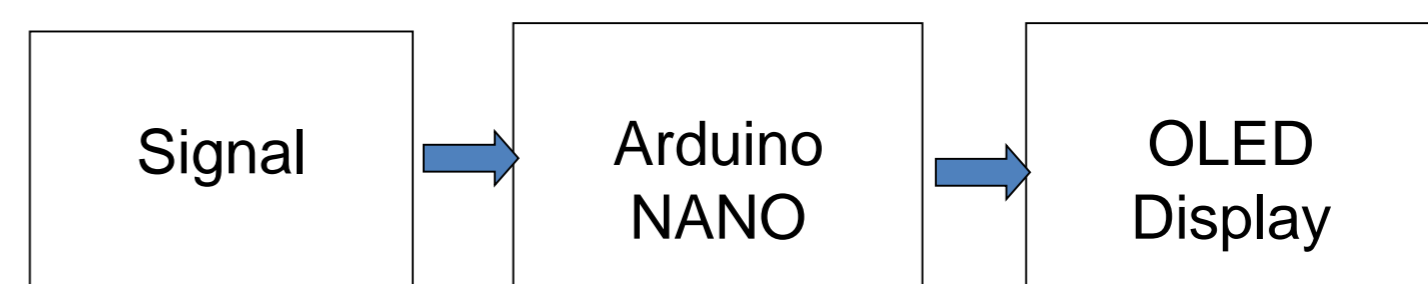
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## Abstract

It was aimed to enable the oscilloscope to determine the waveform, frequency and amplitude of the wave at the same time thanks to the wave displayed on its own small oled screen. Thus, the oscilloscope can be used whenever it is needed, free from the burden of carrying a large device.



## Signal Flow Chart

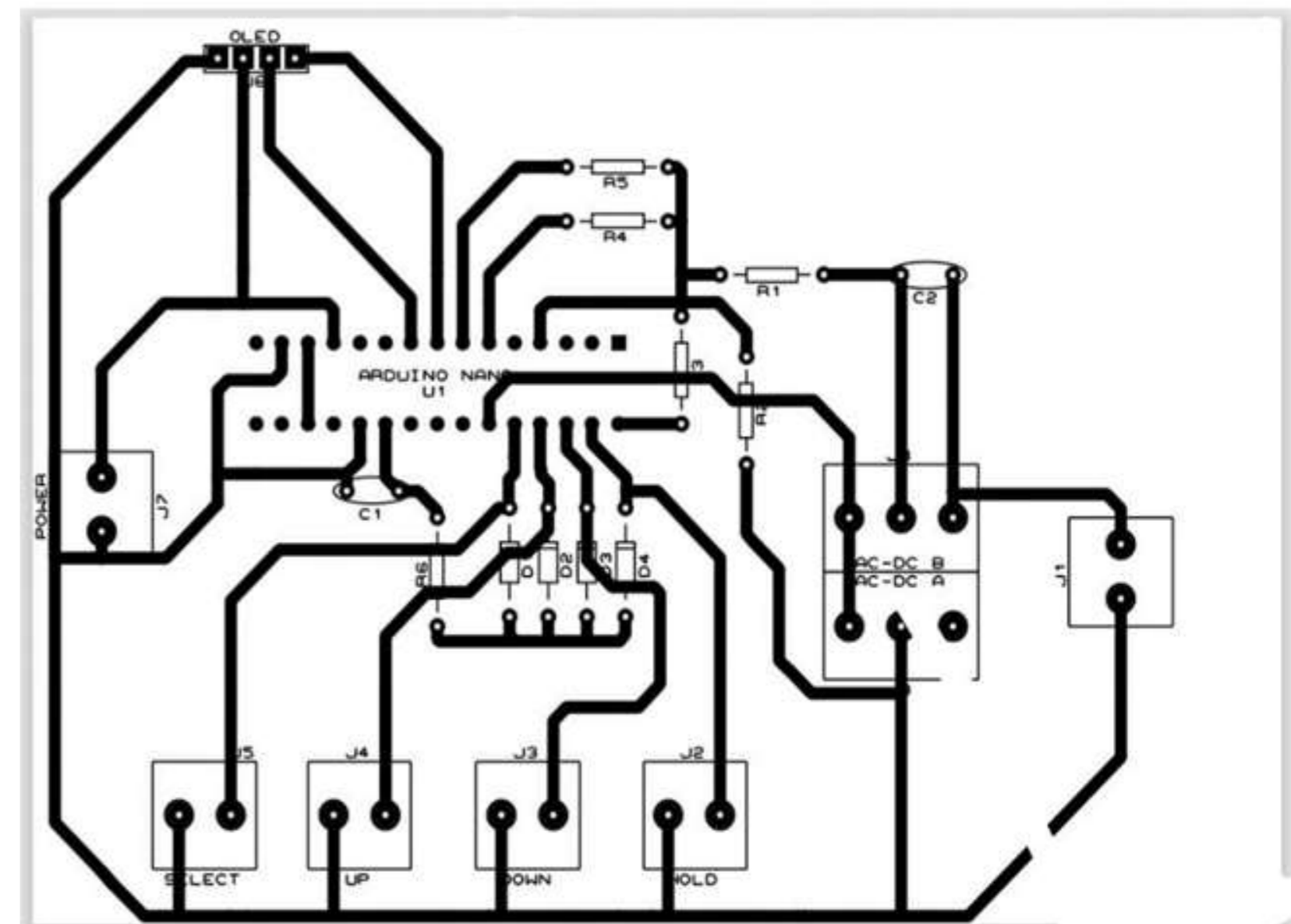


## Main Components

Arduino Nano, Switch, Capacitors, Resistors, Diodes, OLED Display, Buttons.

## Main Aim of Portable Oscilloscope

It will be a portable oscilloscope solution in tight spaces, electronic installations or where the person concerned cannot carry an oscilloscope. Thanks to its small size, the signals will be easily visualized.



## Conclusion

Portability was a priority for this oscilloscope and that is why it was designed in small dimensions. It does not show the characteristics of the highest frequency waveform to be measured, but it can measure frequency, up to about 25 kHz.

## References

- 1) Ishtiaq Ahmed Karim (2014), A low cost portable oscilloscope based on Arduino and GLCD, IEEE
- 2) ADVANCES IN MATERIALS, ELECTRONICS III: 3rd International Conference on Advances in Materials, Machinery, Electronics (AMME 2019)