

## Summary

In this project, I designed the 50Hz notch filter by modifying 30Hz low-pass filter to decrease the order. The instrument achieves the goal of enhancement and filtering of signals on embedded system. Since the weight of whole instrument is lighter than 30g, it provides a new idea for miniaturization of notch filter.

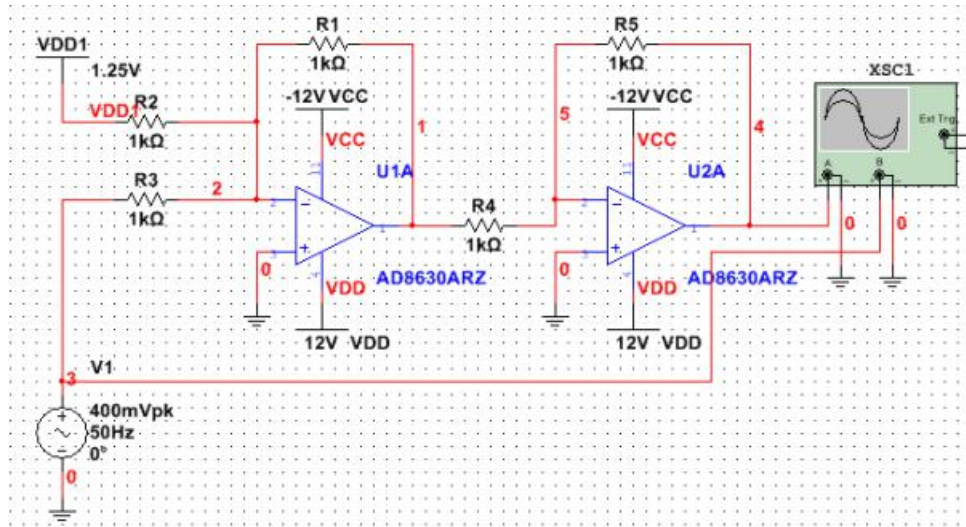


Figure 1 Pre-processing circuit

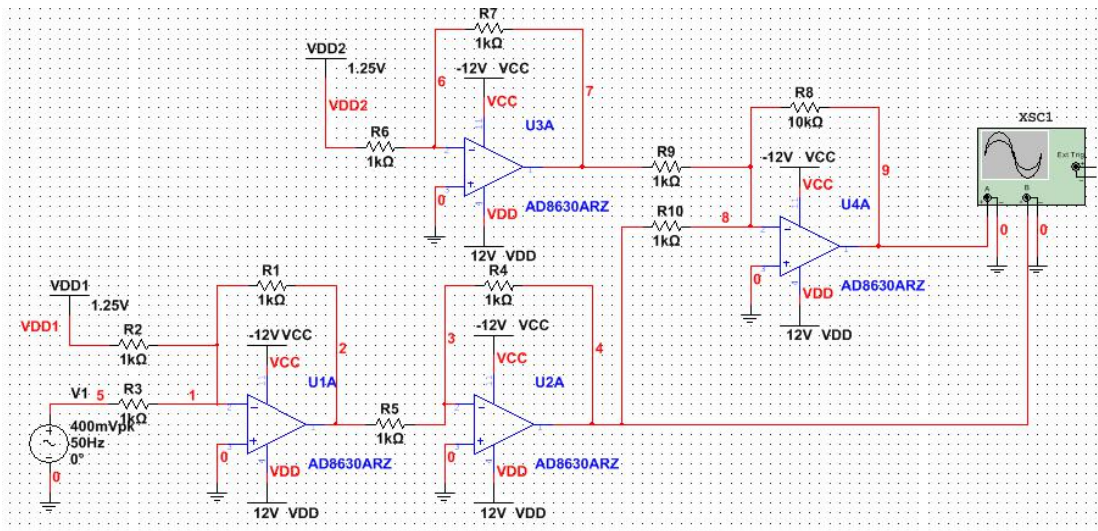


Figure 2 Post-processing circuit

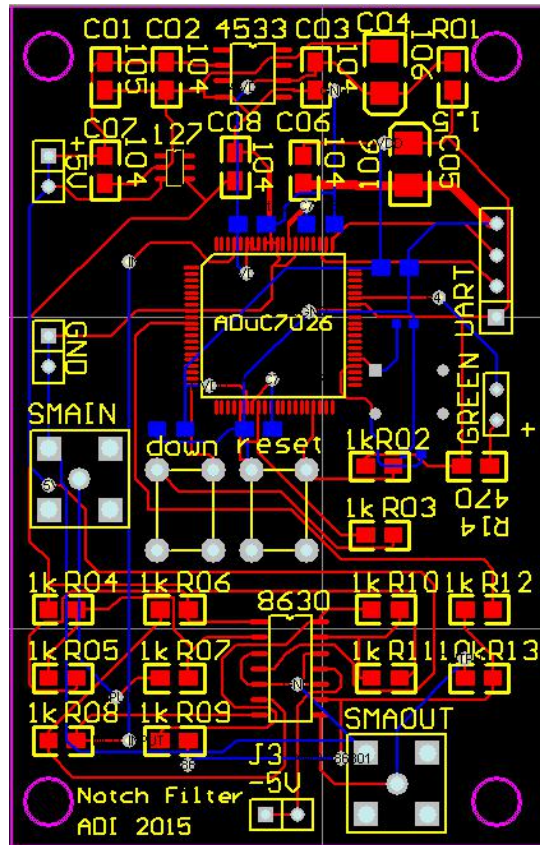


Figure 3 PCB(Printed circuit board)