

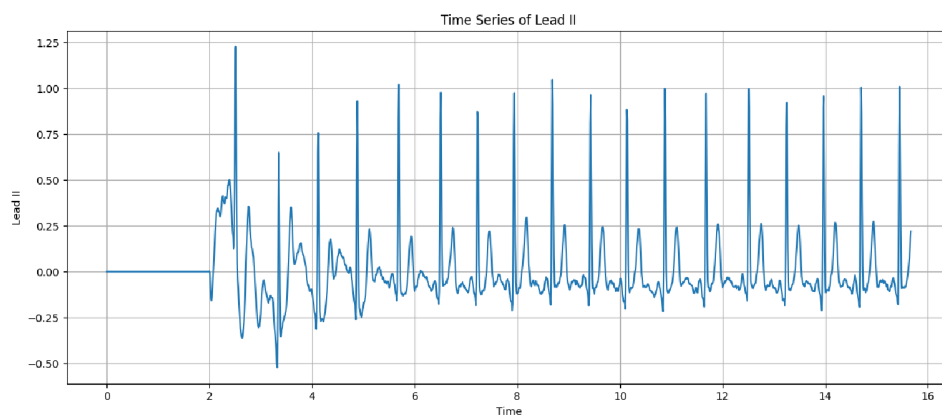
## Purpose

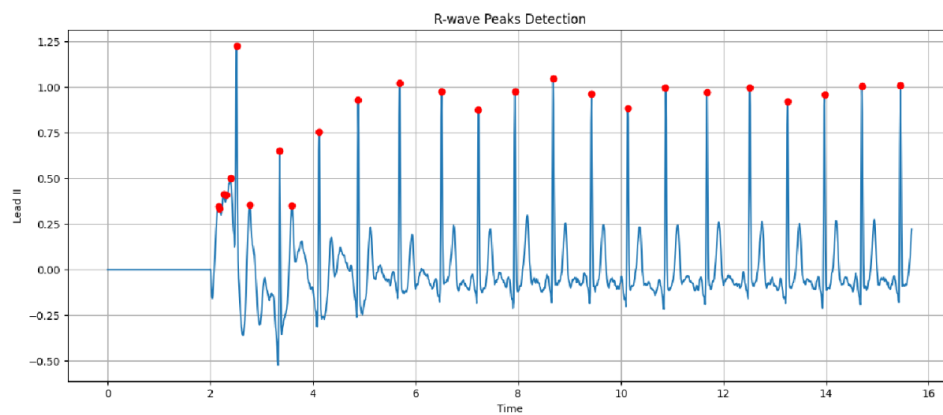
Electrocardiography is the study of the electrical activity of the heart. Electrocardiograms are graphical records that measure the change in the electrical activity of the heart. In order to obtain an electrocardiogram, electrodes are attached to a subject in specific arrangements known as lead. Alternating leads can affect the results of the ECG Wave components. Einthoven's triangle illustrates the three leads that are normally used to record electrocardiograms. The purpose of laboratory 10 is to be able to identify the more common abnormalities of EKG patterns and to understand the logic behind the Einthoven's Triangle and law.

## Procedure

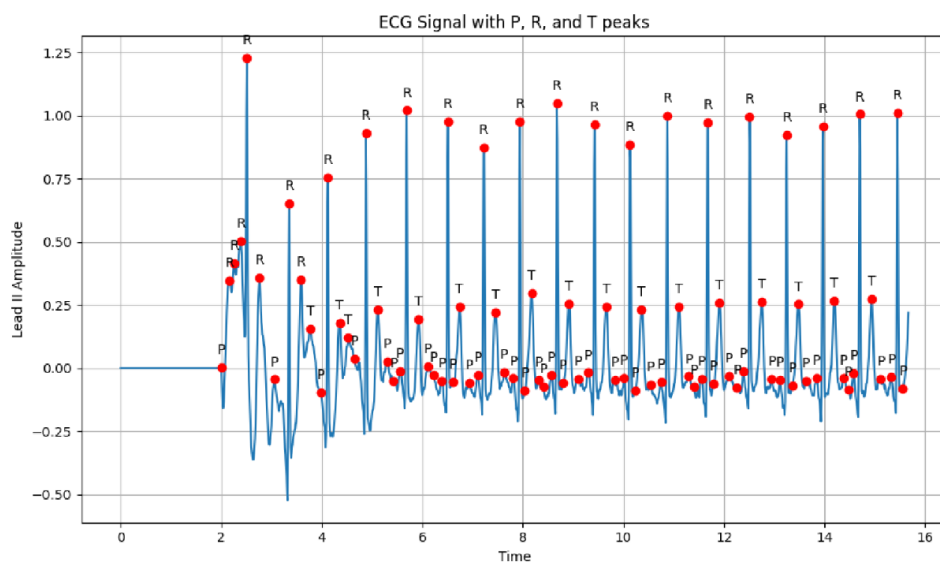
To complete laboratory 10, we started by Opening theLabscribe3program by clicking on theLabscribe3iconon the desktop. As Soon as the program opens, you should see a window pop-upthat says "Hardware foundIWX214:2008-1-24," click "OK."3.In the second from the top row ,we clicked on the "Settings"tab. About one third of the way down the drop-down window should be a tab called "Human Heart."Click on that tab and that should lead you to a tab called "ECG-HeartSounds."After we clicked on the ECG- Heart sounds tab an EKG should pop up on the screen. This indicates that it is ready to record. The next step is to remove the disposable ecg electrodes and snap the lead wires onto the electoreds. The subject must remove all jewelry from their wrists and ankles. Use an alcohol swab to clean the region of the region of the skin before placing the electrodes. The black lead should be attached to the right wrist. The red lead should be attached to the left ankle. The green lead should be attached to the right ankle. After that my partner instructed me to be still and sit quietly, she pressed on the record button, the signal should scroll across the screen. When we got a suitable trace my partner typed my name in Lead 11 in the mark box. After we pressed the enter key on the keyboard to attach the comment to the data. We then recorded for one minute while I was sitting quietly. We then labeled one set of the five ECG waves.

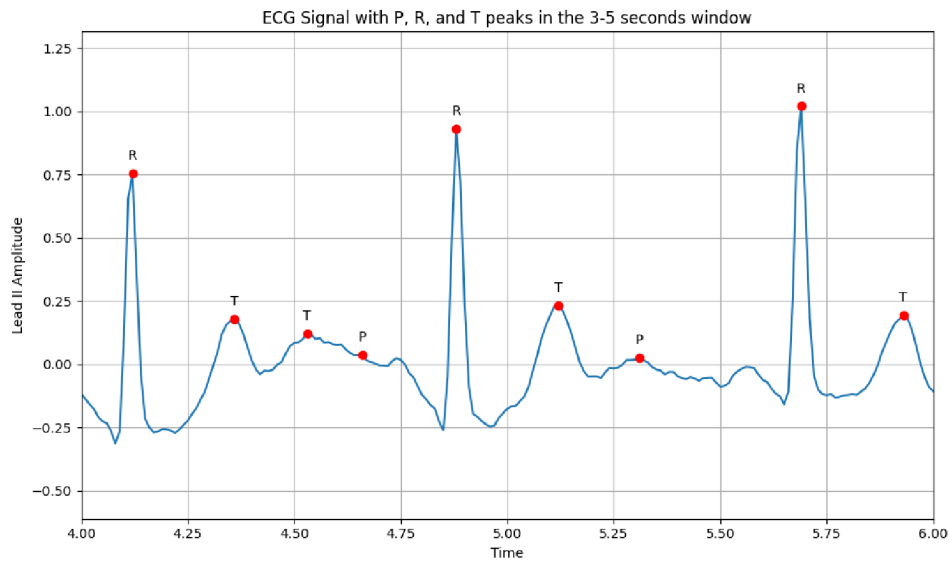
## Results





Average RR interval: 0.55 seconds  
Heart rate: 108.35 BPM





## Discussion

Laboratory 10 was interesting because I got to do an electrocardiogram of my heart, but it was very difficult to make the graphs for me. The einthoven's triangle was very interesting to me because it amazes me that by placing electrodes on our arms and legs we are able to obtain an electrocardiogram of our heart. It is also interesting how each electrodes has a specific color and if placed incorrectly it can affect the amplitude of the ECG wave components. My EKG showed that I had a heart rate of 108 which would indicate that I have tachycardia. This didn't surprise me because each time I get my pulse taken it is always around the same number. An experimental error that may have occurred would have been if my partner didn't place the electrodes correctly on me. A way to make sure that wouldn't happen would be to ask Doctor Oak to double check if we are placing them correctly before running our test.

## Conclusion

In conclusion, in order to obtain an ECG electrodes are attached to a subject in a very specific arrangement. Alternating electrodes can affect the amplitude of the ECG wave components. The einthoven's triangle demonstrates the three that are normally used to record EKGs which are red electrode, black electrode, and green electrode. The components that make up an ekg are P which is atrial depolarization, QRS which is Ventricular depolarization, T which is Ventricular Repolarization.