1. Build the circuit as in the pictures
2. Use Lead I connection
3. Record the data using labview
4. Signal processing using matlab

Use the following code in matlab:

close all;

input = csvread('Efe-PQRST.lvm');%read the file

x=conv(input,Num); %convolution with a BP filter

%cutoff of 5 and 30 Hz designed using the filterDesign app.

[peaks,location] = findpeaks(x,'MinPeakDistance',1400);%read the max peaks

plot(x)

time1 = (location(3,1) - location(2,1))/1000 %find the period using the time b/w 3rd and 2nd QRS peaks

time2 =(location(2,1) - location(1,1))/1000 %find the period using the time b/w 2nd and 1st QRS peaks

HR\_pmin = 60/((time1+time2)/2)%calculate heart rate