

# signals project

## **part 1**

-It's required to design a signal generator on matlab. This generator is expected to draw any of the following functions (using the command 'menu' to choose between them) or any combination of them. If the user chooses one function he should be asked about some information to draw it :

- Sinusoidal

the program should ask the user to enter the amplitude, starting phase shift and frequency

- DC

the program should ask the user to enter the dc value

- Ramp

the program should ask the user to enter the slope and the intercept with y-axis

- Exponential

the program should ask the user about the amplitude and exponent

- Impulse

the program should ask the user for its location

- Unit step

the program should ask the user to enter the amplitude and location of transition

- Rectangular

the program should ask the user to enter the amplitude, center of the rect and its width

It must allow the user to choose if the signal is continuous or discrete then user should choose start point , end point ,sampling frequency ,break points.

Break point: it allow user to plot more than one signal For example if we choose break point =2 we can draw 3 different signal. The end of 1<sup>st</sup> signal is the start of 2<sup>nd</sup> signal and the same for 3<sup>rd</sup> signal. The program must ask the user for the positions of break points and each interval what to draw in it.

Team details :

- 4---->6 members from the same section
- Team member names to be delivered by a deadline Saturday night at 12 am
- Order of writing names must be ordered by your IDs
- Topic of the mail must be "signals project" without the quotes :) The mail to deliver your team details is : mashehab@ymail.com

-This part is to be delivered on your labtops by week start 23/3/2013  
isA every team in his lab time and I will ask every team member about  
his understand to the work and what he has done

-GUI or any plus work will be appreciated

Good luck ^\_^