

```

figure(1)
ref_signal=ones(1000,1)+rand(1000,1);
ref_signal(250:750) = ref_signal(250:750) + 0.5;
subplot(3,1,1)
plot(ref_signal)

new_signal=rand(1000,1)+1;
shift=200;
new_signal(shift:1000)=ref_signal(1:(1001-shift));
subplot(3,1,2)
plot(new_signal)

[corout,lags] = xcorr(new_signal-mean(new_signal),ref_signal-mean(ref_signal));
subplot(3,1,3)
plot(lags,corout)

```

