



```
function f = fcn(t)
%% Impulse (half-sine) definition

Fmax=4000;
Ti=2*0.3; % period of the half-sine function
fi=1/Ti; % freq. of the half-sine function
f=zeros(size(t));
for j=1:length(t)
    if t(j)<=0.3
        f(j)=Fmax*sin(2*pi*fi*t(j));
    else
        f(j)=0;
    end
end

end
```