Write a TSR to generate the pattern of the frequency tones by reading the Real Time Clock (RTC). The duration of the each tone is solely decided by the programmer

```
.model tiny
.code
ORG 0100h
start:
   jmp trans

    intvect dd ?
   temp db 00h
    hr db ?
    min db ?
    sec db ?
resi:
   push ax
   push bx
   push cx
   push dx

   push si
   push di
   push sp
   push bp

   push ss
   push ds
   push es

   mov ah,02h  ; read real time clock
   int 1Ah

   mov cs:hr,ch
   mov cs:min,cl
   mov cs:sec,dh

   inc cs:temp

   mov ax,0B800h  ;set AX to hexadecimal value of B800h for graphics mode.
   mov es,ax
   mov di,0100

   mov al,cs:hr
   and al,0F0h
   mov cl,04h
   shr al,cl
   add al,30h
   mov es:[di],al
   inc di
   inc di
```

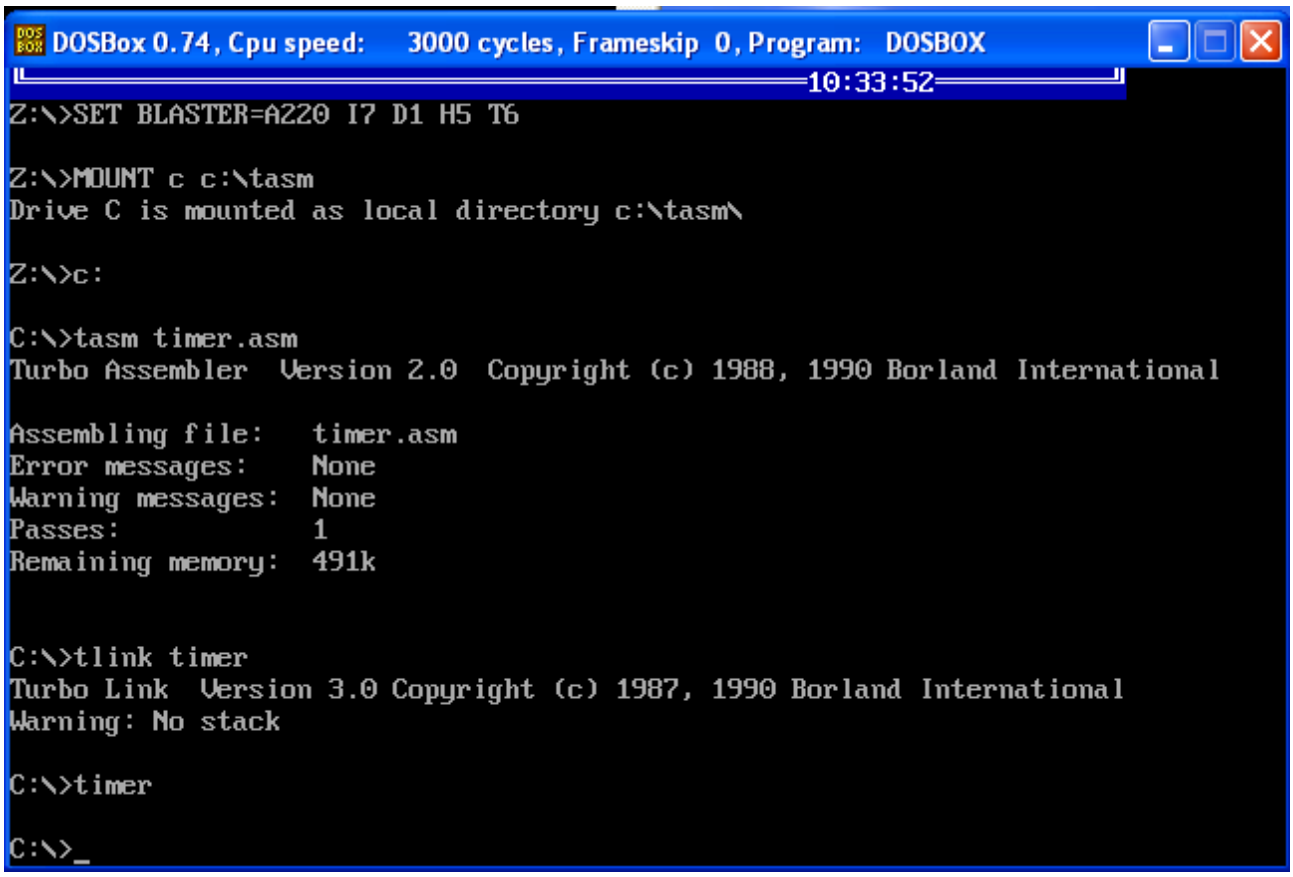
```
mov al,cs:hr
and al,0Fh
add al,30h
mov es:[di],al
inc di
inc di

mov al,':'
mov es:[di],al

inc di
inc di

mov al,cs:min
and al,0F0h
mov cl,04h
shr al,cl
add al,30h
mov es:[di],al
inc di
inc di

mov al,cs:min
and al,0Fh
add al,30h
mov es:[di],al
inc di
inc di

mov al,':'
mov es:[di],al
inc di
inc di

mov al,cs:sec
and al,0F0h
mov cl,04h
shr al,cl
add al,30h
mov es:[di],al
inc di
inc di

mov al,cs:sec
and al,0Fh
add al,30h
mov es:[di],al

    cmp cs:temp,100
```

```
    mov cs:temp,00h

      ret
trans:
    cli

    mov ah,35h
    mov al,08h
    int 21h

    mov word ptr intvect,bx
    mov word ptr intvect+2,es

    mov ah,25h
    mov al,08h
    mov dx,offset resi
    int 21h

    mov ah,31h
    mov al,00h
    mov dx,offset trans
    sti
    int 21h

 end start
```

RUN:

```
MOUNT c c:\tasm
c:
tasm timer.asm
tlink timer
timer
```

OUTPUT:


DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
10:33:52
Z:\>SET BLASTER=A220 I7 D1 H5 T6
Z:\>MOUNT c c:\tasm
Drive C is mounted as local directory c:\tasm\
Z:\>c:
C:\>tasm timer.asm
Turbo Assembler Version 2.0 Copyright (c) 1988, 1990 Borland International
Assembling file: timer.asm
Error messages: None
Warning messages: None
Passes: 1
Remaining memory: 491k
C:\>tlink timer
Turbo Link Version 3.0 Copyright (c) 1987, 1990 Borland International
Warning: No stack
C:\>timer
C:\>_