

```
define OSC 16
include "modedefs.bas"
```

```
'PORT SETUP'
TRISA = %11111111
ADCON1 = %10000000
TRISC = %11111111
TRISB = %00000000
TRISD = %11111111
start:
```

```
'define variables
'this sets i as a variable
i var BYTE
```

```
output PORTB.7
```

```
DEFINE HSER_RCSTA 90h ' enable the receive register
DEFINE HSER_TXSTA 20h ' enable the transmit register
DEFINE HSER_BAUD 31250 ' set the baud rate
```

```
HIGH PORTB.7
pause 200
LOW PORTB.7
PAUSE 200
HIGH PORTB.7
pause 200
LOW PORTB.7
PAUSE 200
```

```
main:
if portd.0 = 1 then
goSub toneA
endif
```

```
if portd.1 = 1 then
goSub toneB
endif
```

```
if portc.3 = 1 then
goSub toneC
endif
```

```
if portc.2 = 1 then
goSub toneDb
endif
```

```
if portd.2 = 1 then
goSub toneE
endif
```

```
if portd.3 = 1 then
goSub toneF
endif
```

```
if portc.4 = 1 then
goSub toneG
endif
```

```
if portc.5 = 1 then
goSub toneAb
endif
```

```
goto main
```

```
toneA:
FOR i = 0 TO 5 step 1
' noteon channel 1, middle A, middle velocity
hserout [$90, 21, $127]
pause 500
' noteoff channel 1, middle A, no velocity
hserout [$80, 21, $00]
pause 500
hserout [$90, 71, $127]
pause 500
' noteoff channel 1, middle A, no velocity
hserout [$80, 71, $00]
pause 500
' noteon channel 1, middle A, middle velocity
hserout [$90, 28, $127]
pause 500
' noteoff channel 1, middle A, no velocity
hserout [$80, 28, $00]
pause 500
'this increments i
```

```
NEXT i
```

```
return
```

```
toneB:
FOR i = 0 TO 5 step 1
' noteon channel 1, middle A, middle velocity
hserout [$90, 71, $127]
pause 500
' noteoff channel 1, middle A, no velocity
hserout [$80, 71, $00]
pause 500
'this increments i
NEXT i
```

return

```
tonec:
FOR i = 0 TO 5 step 1
' noteon channel 1, middle A, middle velocity
hserout [$90, 60, $127]
pause 500
' noteoff channel 1, middle A, no velocity
hserout [$80, 60, $00]
pause 500
'this increments i
NEXT i
```

return

```
toneDb:
FOR i = 0 TO 5 step 1
' noteon channel 1, middle A, middle velocity
hserout [$90, 37,$127]
pause 500
' noteoff channel 1, middle A, no velocity
hserout [$80, 37, $00]
pause 500
'this increments i
NEXT i
```

return

```
toneE:
FOR i = 0 TO 5 step 1
' noteon channel 1, middle A, middle velocity
hserout [$90, 28, $127]
pause 500
' noteoff channel 1, middle A, no velocity
hserout [$80, 28, $00]
pause 500
'this increments i
NEXT i
```

return

```
toneF:
FOR i = 0 TO 5 step 1
' noteon channel 1, middle A, middle velocity
hserout [$90, 89, $127]
pause 500
' noteoff channel 1, middle A, no velocity
hserout [$80, 89, $00]
pause 500
```

```
'this increments i  
NEXT i
```

```
return
```

```
toneG:
```

```
FOR i = 0 TO 5 step 1  
' noteon channel 1, middle A, middle velocity  
hserout [$90, 48, $127]  
pause 500  
' noteoff channel 1, middle A, no velocity  
hserout [$80, 48, $00]  
pause 500  
'this increments i  
NEXT i
```

```
return
```

```
toneAb:
```

```
FOR i = 0 TO 5 step 1  
' noteon channel 1, middle A, middle velocity  
hserout [$90, 32, $127]  
pause 500  
' noteoff channel 1, middle A, no velocity  
hserout [$80, 32, $00]  
pause 500  
'this increments i  
NEXT i
```

```
return
```