

```
int main (void){
char    digit='0';
int digit_num=0;
int string_counter=0;
int letter_counter=0;
const char* string_ptr = 0;
setup_HW;

if(watch_dog_reset != 1){
print_memory_contents;
String_to_PC_Basic("\r\nSend digits?");}
else String_to_PC_Basic("\r\nAgain");
I2C_Tx_any_segment_clear_all();
digit_num = 0;

do{
while(!(isCharavailable_Basic(1)))wdr();
digit = Char_from_PC_Basic();
switch(digit){

case '0': string_ptr = zero; break;

case '1': string_ptr = one; break;
case '2': string_ptr = two; break;
case '3': string_ptr = three; break;
case '4': string_ptr = four; break;
case '5': string_ptr = five; break;
case '6': string_ptr = six; break;
case '7': string_ptr = seven; break;
case '8': string_ptr = eight; break;
case '9': string_ptr = nine; break;
default: continue; break;}

display_num_string(string_ptr, digit_num);digit_num++;}
while (digit_num < 8);

while(!(isCharavailable_Basic(1)))wdr();
Char_from_PC_Basic();
I2C_Tx_any_segment_clear_all();
SW_reset;}
```

//defines number of next digit on display

//pointer: will be loaded with the address of a segment string
//(i.e. the address of string "zero", "one", "two" etc....)

//First digit on display

//start of "do{}while();" loop

//user enters digit (0 to 9) at the PC keyboard
//The appropriate address is loaded into location
// "string_pointer"
//The address of array zero is loaded into
//location "string_ptr"

//Illegal key press: Go immediately to the start of the do loop
//Send the address of the required string to
//subroutine "display_num_string();"
//return to the top of the "do" loop until all digits
//have been illuminated

//clear display and repeat