

[HOME](#)[LED DISPLAY PRODUCTS](#)[SERVICE](#)[BLOG](#)[ABOUT](#)[REQUEST A QUOTE](#)[CONTACT](#)[中 \(TW\)](#)

POSTED ON OCTOBER 7, 2024 BY JARVIS



Examples of three types of 7-segment displays representing English numbers and 16-segment displays representing English letters.

The 7-segment display and the 16-segment display are commonly used in everyday life. They are used to represent information in Arabic numbers and English letters. However, the 16-segment display is capable of displaying complete Arabic numbers, capital letters, and lowercase English letters. The 7-



- 1.2. Example and Truth Tables for various formations of upper and lower case English letters and 7-segment display words on a 7-Segment Display.
2. Display Arabic numbers using an alphanumeric display.
 - 2.1. The 16-segment display represents the various formations of Arabic numbers from 0 to 9..
3. Example and Truth Tables for Capital English Letters on a 16-Segment Display
4. The 16-segment display represents the various formations of Capital English letters.
5. Example and Truth Tables for Lowercase English Letters on a 16-Segment Display
6. The 16-segment display represents the various formations of Lowercase English letters.
7. Examples of LED Display products in real life.
 - 7.1. Gogoro S2 dash board | 7-segment display
 - 7.2. Timesbirds Count down meter timers | 7-Segment Display
 - 7.3. Running machine's information moving sign | 14-segment display
 - 7.4. Microwave Oven | 7-Segment display
8. Conclusion
9. Related article

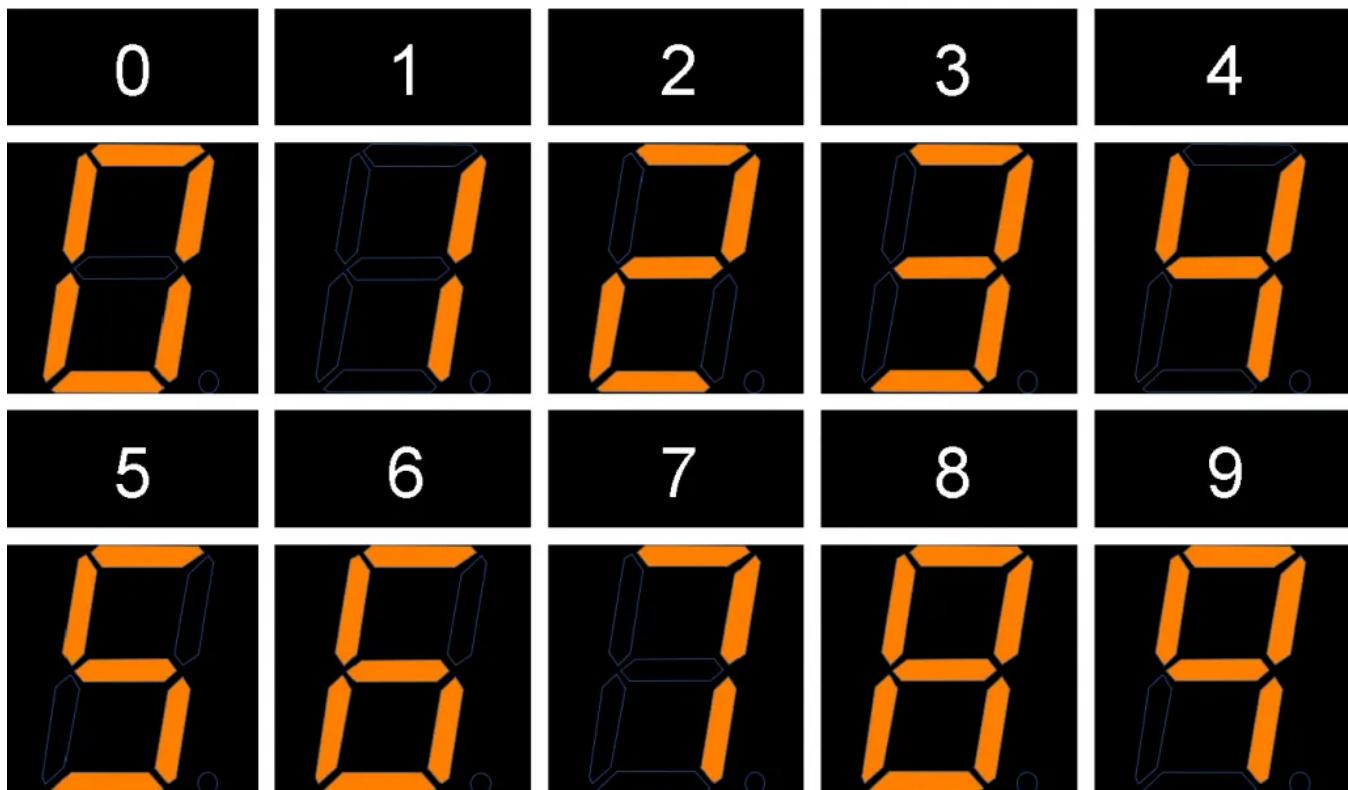
Use a 7-segment display to represent information

Example and Truth Tables for Arabic Numbers 0-9 on a 7-Segment Display.

The most common application of a 7-segment display is to represent numbers. The example below shows the usage of a 0.56" diamond-shaped 7-segment display ([0.56" Single SMD LED 7-Segment Display | Diamond Seg.](#)) to describe Arabic numbers 0-9 ([PDF](#)). Additionally, there is a 7-segment display that represents the actual values of Arabic numbers ([PDF](#)). Engineers can utilize these resources to code an Arabic Numbers Truth Table and create a program. By referring to these materials, readers can design their own products, such as a running machine's information moving sign, and determine the numbers to be represented on a 7-segment display.



Arabic Numerals Example



The 7-segment display represent examples of Arabic Numbers ([PDF](#))



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)



0	a	b	c	d	e	f	g	dp
	V	V	V	V	V	V		
1			V	V				
	V	V		V	V		V	
3	V	V	V	v			V	
		V	V			V	V	
5	V		V	V		V	V	



products often utilize 7-segment displays to represent English characters. This is achieved by assembling the necessary segments to form individual words or abbreviations. The mixing of uppercase and lowercase letters is a characteristic of single-word displays. The tables below provide examples of 7-segment displays representing English letters ([PDF](#)) and the alphabet in uppercase and lowercase ([PDF](#)) using the segments of the 7-segment display.

OPTO PLUS LED CORP.

7-segment Display English Alphabet

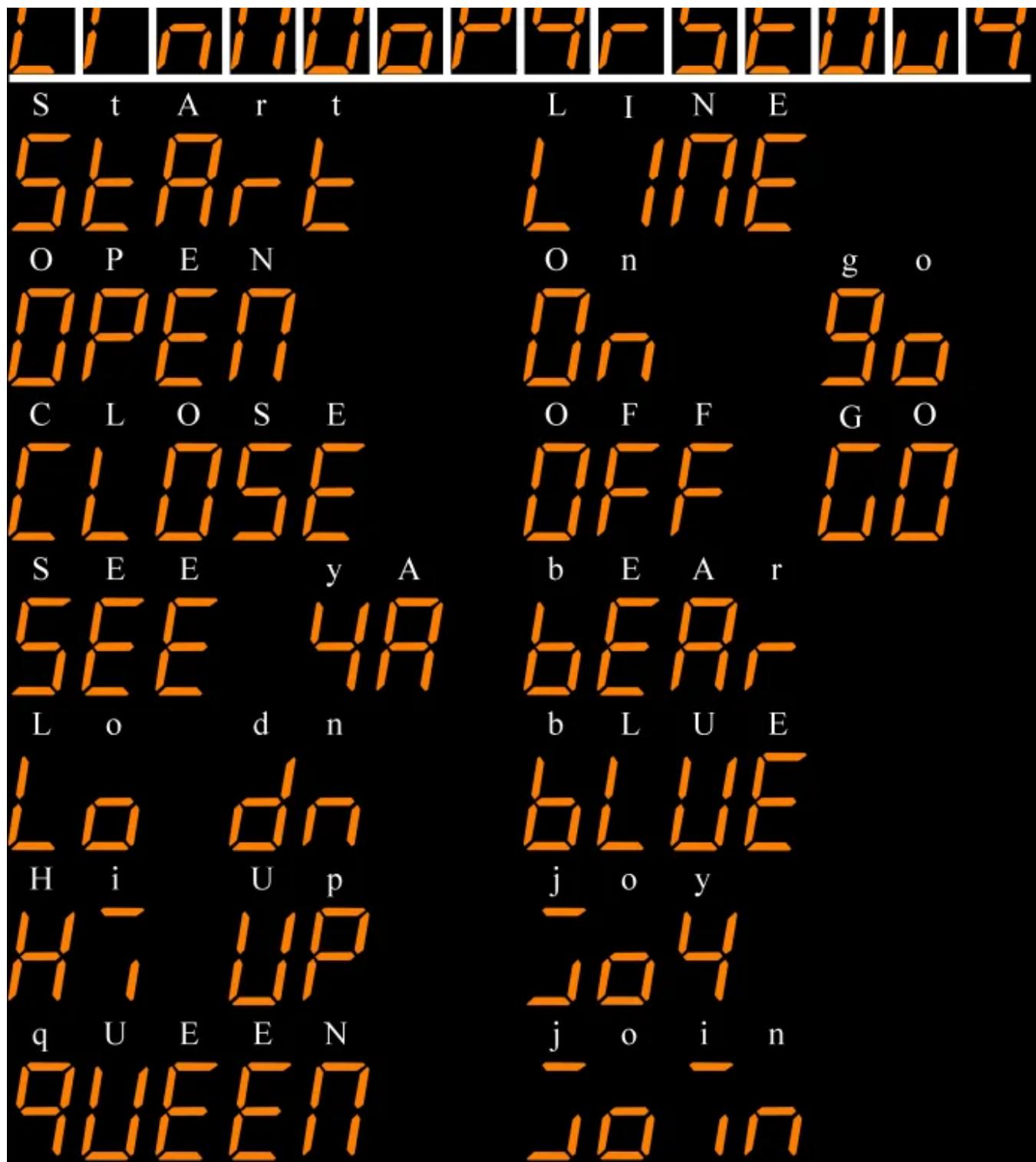
A	b	C	c	d	E	F	g	G	H	h	i	I	j
L	l	n	N	O	o	p	q	r	S	t	U	u	y

7-segment display represents examples of English letters ([PDF](#))



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)





Just like representing numbers on a 7-segment display, engineers need a truth table to develop a program that allows 7-segment displays to show individual words. The provided illustration demonstrates the use of a 0.56" diamond-shaped 7-segment display ([0.56" Single SMD LED 7-Segment Display | Diamond Seg..](#)) and presents a truth table for representing uppercase and lowercase English letters. This valuable resource assists engineers in product design.



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)



REQUEST A QUOTE

CONTACT

中 (TW)

b		V	V	V	V	V
c	V		V	V	V	
e			V	V		V
d		V	V	V	V	V
E	V		V	V	V	V
F	V			V	V	V
g	V	V	V	V	V	V
o	V		V	V	V	V
H		V	V		V	V
h			V		V	V

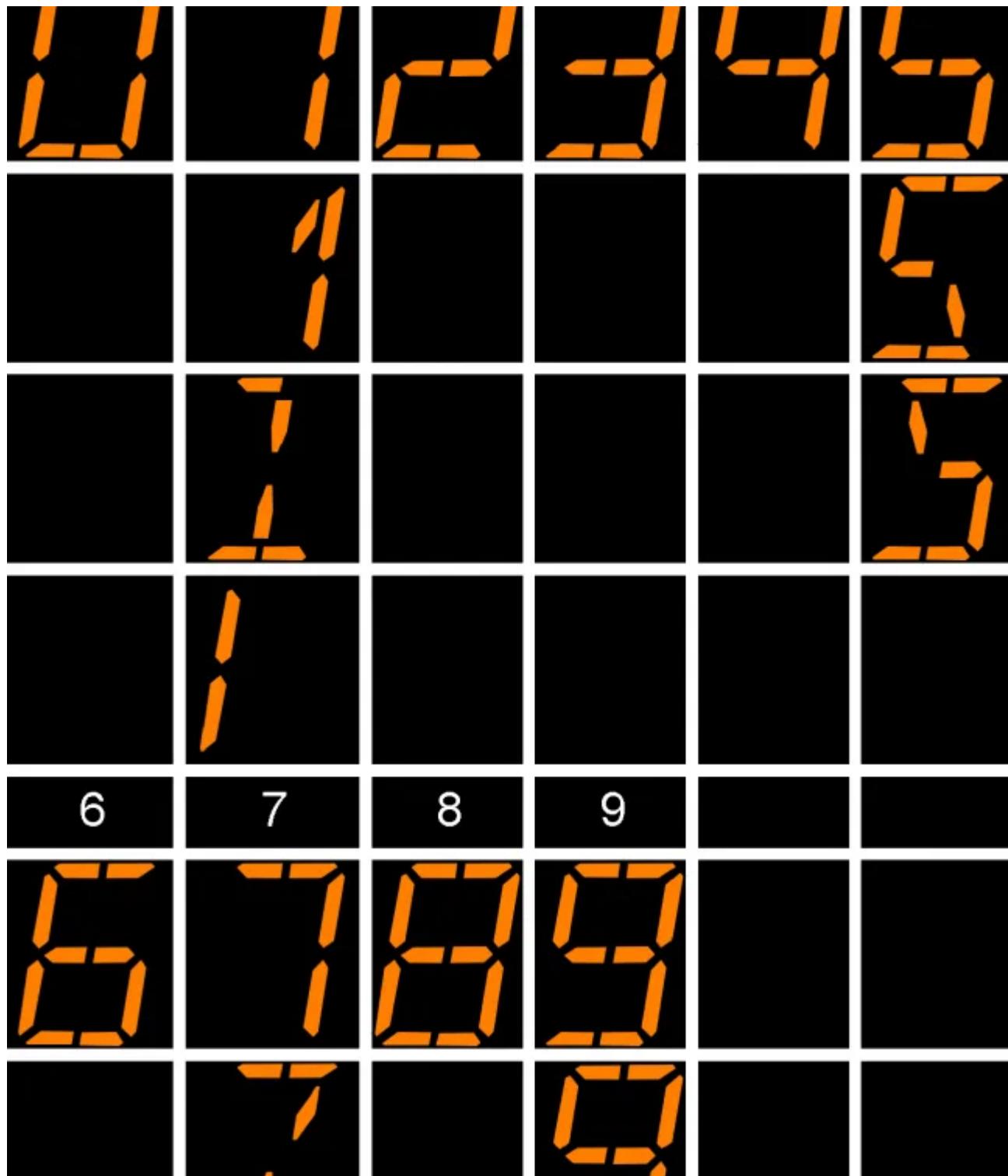

[REQUEST A QUOTE](#)
[CONTACT](#)
[中 \(TW\)](#)

				V	V	V
				V	V	
				V	V	
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
7-segment display represents part of case English letter truth table (PDF)						
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
Display Arabic numbers using an alphanumeric display.						
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
The 16-segment display represents the various formations of Arabic numbers from 0 to 9..						
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
Both 16-segment displays and 7-segment displays can represent Arabic numbers from 0 to 9. However, the 16-segment display can provide more detailed representations of Arabic numbers. The following illustration shows various deformation tables for representing Arabic numbers using a 16-segment display. The top row displays the 7-segment representations of numbers, while the row below shows the corresponding deformations of the same Arabic numbers using the 16-segment display. Designers can select digital fonts based on the specific application of the product.						
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V
				V	V	V



OPTO PLUS LED
7-segment & 16-segment
displays for numbers & letters

[HOME](#)[LED DISPLAY PRODUCTS](#)[SERVICE](#)[BLOG](#)[ABOUT](#)[REQUEST A QUOTE](#)[CONTACT](#)[中 \(TW\)](#)





HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)

Provides an example of using a 7-segment display to represent capital letters of the English alphabet.
It also includes a corresponding truth table indicating the values assigned to each letter.



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)

OPTO PLUS LED
CORP.

HOME

LED DISPLAY PRODUCTS

SERVICE

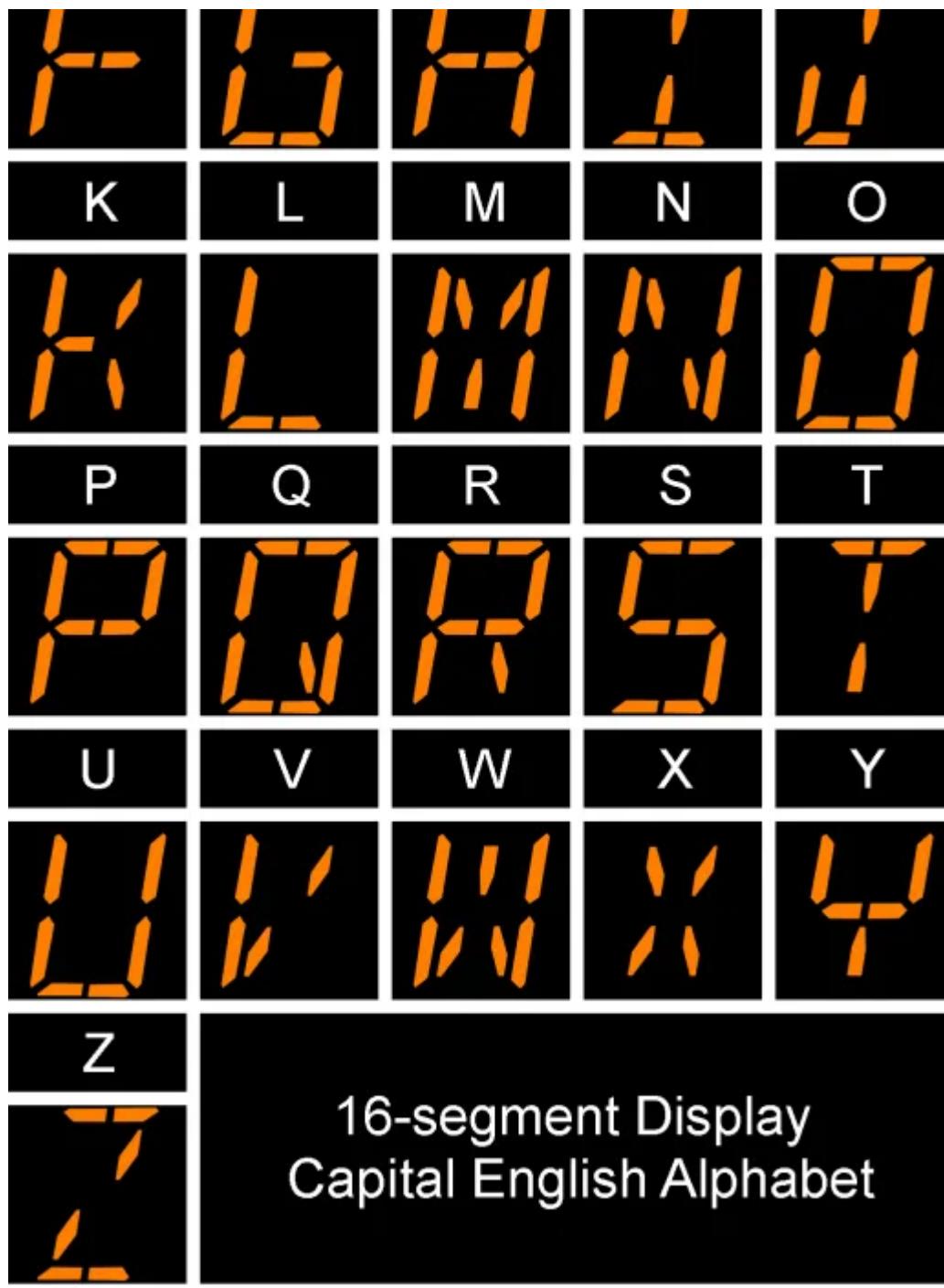
BLOG

ABOUT

REQUEST A QUOTE

CONTACT

中 (TW)



OPTO PLUS LED CORP.



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)



REQUEST A QUOTE

CONTACT

中 (TW)

C	V	V			V	V	V	V						
D	V	V	V	V	V	V					V		V	
E	V	V			V	V	V	V	V	V				
F	V	V					V	V	V	V				
G	V	V	V	V	V	V	V	V	V	V				
H			V	V			V	V	V	V				
I	V	V			V	V					V		V	
J	V	V			V	V					V		V	
K							V	V	V		V	V		
L					V	V	V	V						
M			V	V			V	V		V	V	V	V	
N			V	V			V	V		V		V		
O	V	V	V	V	V	V	V	V						



7-segment
16-segment
LCD

HOME

LED DISPLAY PRODUCTS

SERVICE

BLOG

ABOUT

REQUEST A QUOTE

CONTACT

中 (TW)

representation. The following illustration presents several common variations of capital letters, enabling readers to select the appropriate style according to their specific needs.

OP OPTO PLUS LED CORP.

16-segment Display Capital English Alphabet Variation

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

16-segment display representing distortions of uppercase English letters ([PDF](#))



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)



OPTO PLUS LED CORP.

HOME

LED DISPLAY PRODUCTS

SERVICE

BLOG

ABOUT

REQUEST A QUOTE

CONTACT

中 (TW)

+	3	n	l	
k	l	m	n	o
p	q	r	s	t
F	F	r	z	t
u	v	w	x	y
				3
z	16-segment Display Lower-case English Alphabet			
z				



OPTO PLUS LED CORP.



HOME

LED DISPLAY PRODUCTS

SERVICE

BLOG

ABOUT

REQUEST A QUOTE

CONTACT

中 (TW)



HOME

LED DISPLAY PRODUCTS

SERVICE

BLOG

ABOUT

REQUEST A QUOTE

CONTACT

中 (TW)



REQUEST A QUOTE

CONTACT

中 (TW)

			V	V	V	V	V	V	V	V			
				V	V	V		V	V				
				V	V	V	V	V	V	V			
			V	V	V	V	V	V	V	V			
	V	V	V		V	V	V	V	V	V			
		V						V	V	V	V		V
	V	V	V	V	V	V		V	V	V			
				V			V	V	V	V			
	V	V	V	V	V	V		V	V	V			V
				V	V	V		V	V	V	V		
					V	V	V	V	V	V			
						V	V	V	V	V	V	V	
	V						V		V	V	V	V	
		V						V	V	V	V	V	V
			V					V	V	V	V	V	V
				V				V	V	V	V	V	V
					V			V		V	V	V	V



HOME

LED DISPLAY PRODUCTS

SERVICE

BLOG

ABOUT

REQUEST A QUOTE

CONTACT

中 (TW)

In addition to the aforementioned examples of lowercase English letters, the 16-segment display offers a variety of different lowercase English text styles to accommodate various product applications or information representation needs. The following illustration showcases several common deformations of lowercase English letters, allowing readers to choose based on their specific requirements.



HOME

LED DISPLAY PRODUCTS

SERVICE

BLOG

ABOUT

REQUEST A QUOTE

CONTACT

中 (TW)



16-segment displays represent the distortion of lowercase English letters ([PDF](#))



Additionally, the 7-segment display is utilized to showcase three English words: HELLO, GO, and SEE YA.

7-Segment Display English Alphabet Application Example | 七段顯示器顯...





OPTO PLUS LED

HOME

LED DISPLAY PRODUCTS

SERVICE

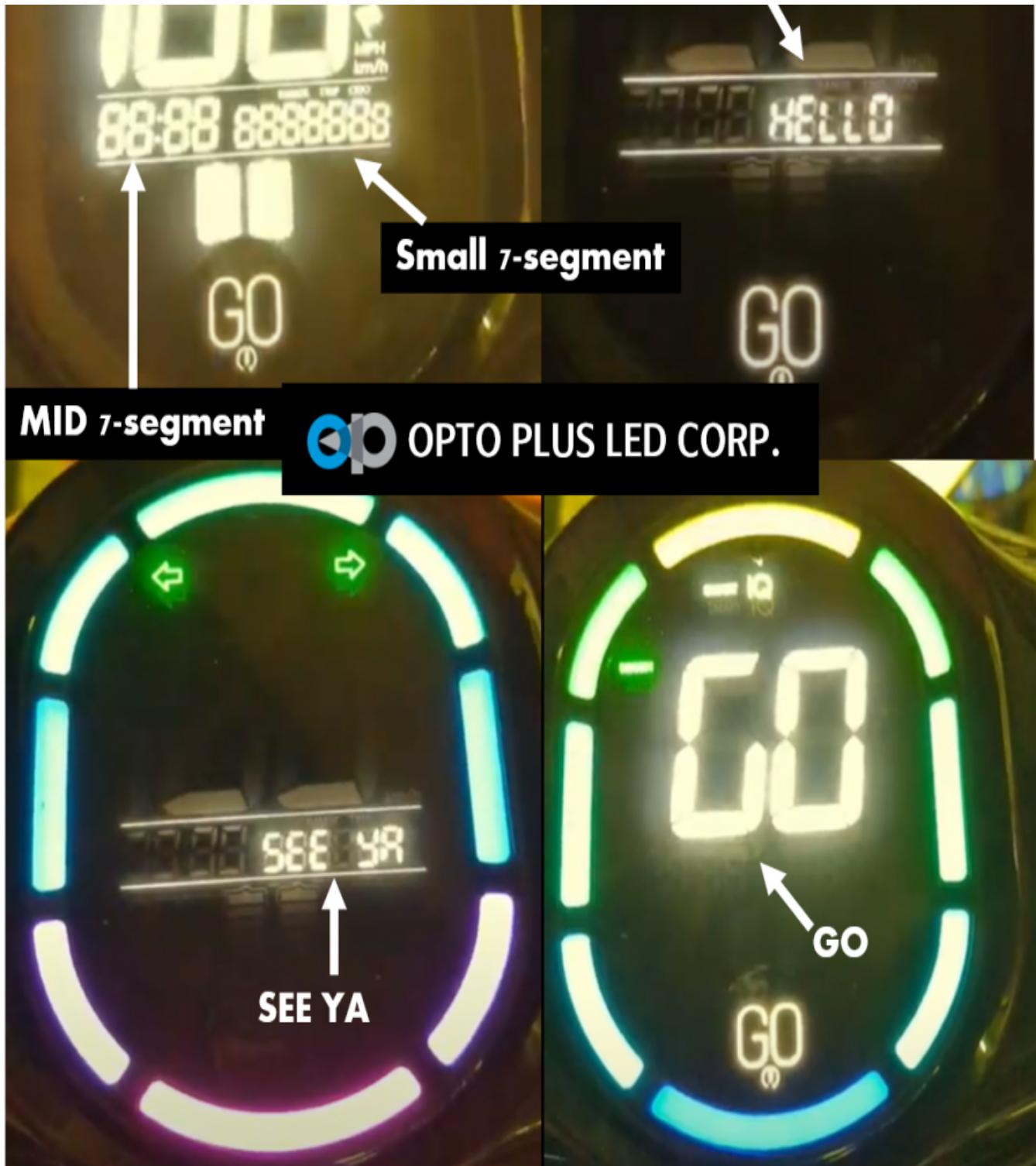
BLOG

ABOUT

REQUEST A QUOTE

CONTACT

中 (TW)





HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)

activities like weight training and cycle training, where it represents numbers in countdowns. The product features buttons that allow users to adjust the mode. The left side of the timer has a 7-segment display used for information display. For example, it can show various modes such as 「U P」 , 「d N」 , 「d N」 , 「n t」 , 「t A B A t A」 , 「F g - b A d」 , 「c L」 " For more information, you can refer to the Timebirds product page, which introduces nine different workout modes.

Timebirds | Purpose built workout timers



Timebirds' the crowdfunding video (The picture from [Timebirds](#))



3.		Count Up by round (eg. EMOM)
4.		Count Down
5.		Count Down by round (eg. EMOM)
6.		Custom Timer for Interval Training
7.		Tabata
8.		Fight Gone Bad
9.		Clock display / Alarm Clock

Timebirds' the pattern selection form (The table from [Timebirds](#))

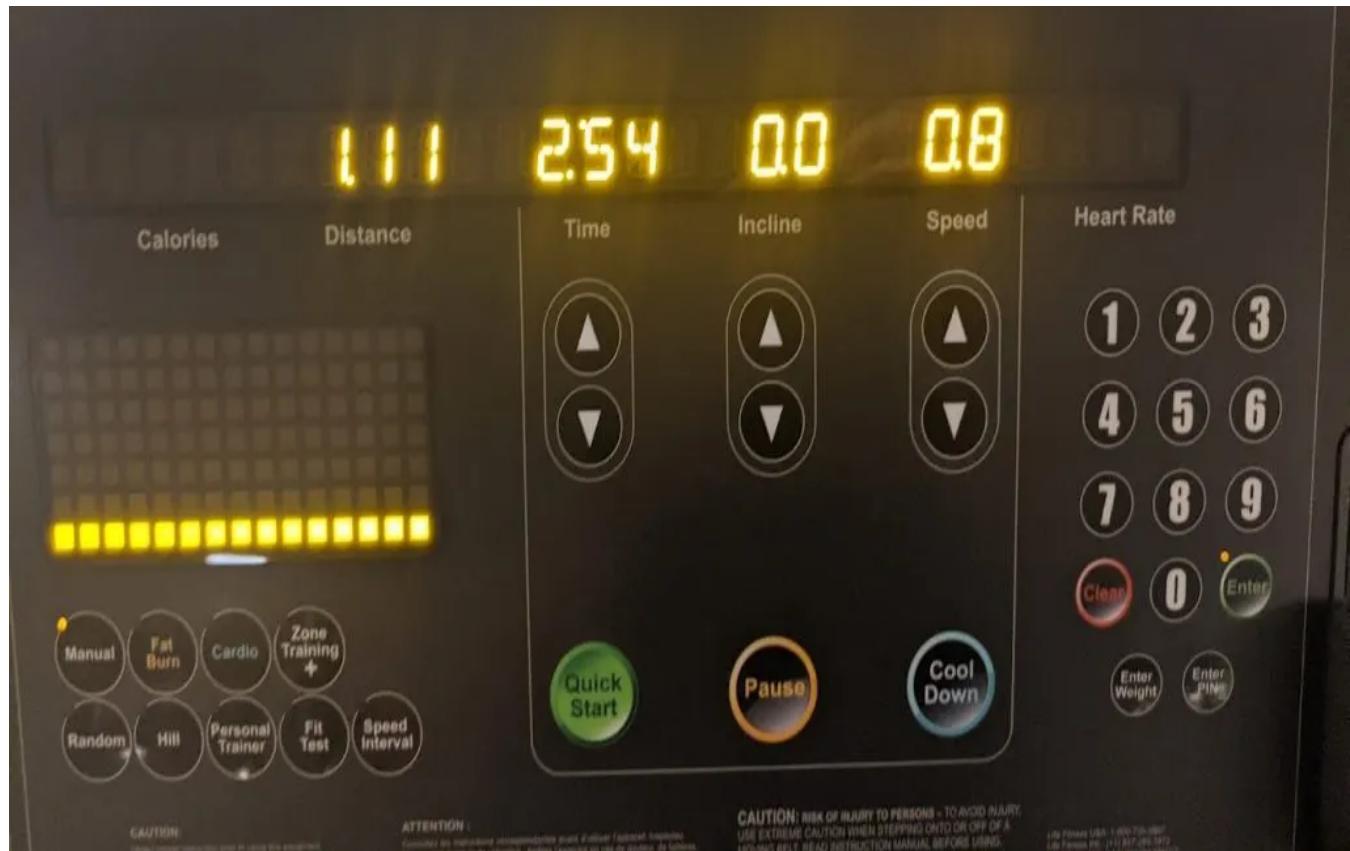
Running machine's information moving sign | 14-segment display

In the figure below, there is a treadmill with a row of numbers indicating running time, distance, speed, and inclination. When the running mode is activated, these characters are displayed on a row of numbers. However, when the [Alphanumeric display](#) is selected, this string of characters can be represented using a 14-segment display as a moving sign. It can display complete Arabic numbers and English letters in non-running mode. Product designers also have the option to choose different fonts to present information according to their needs.

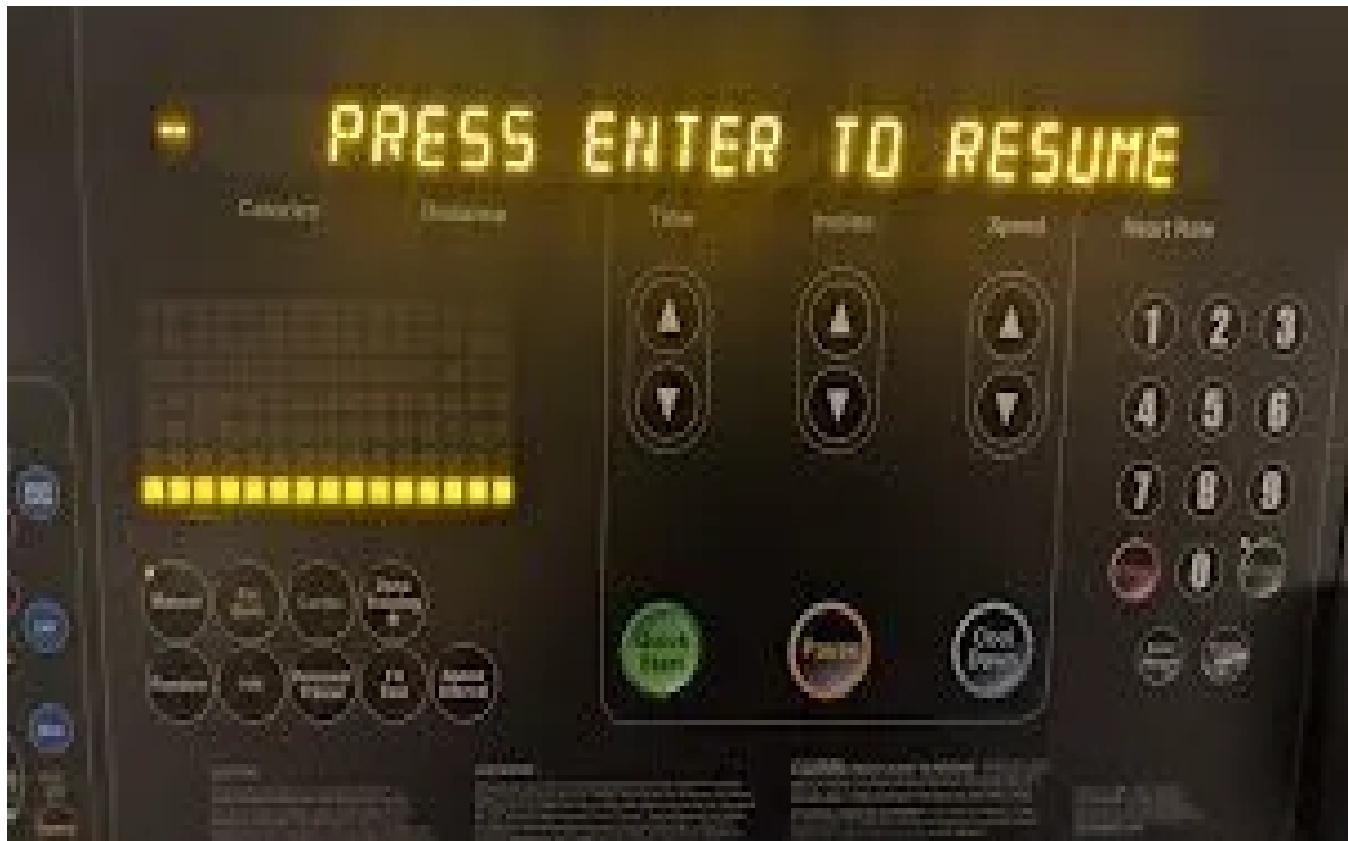


HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

[REQUEST A QUOTE](#) [CONTACT](#) 中 (TW)



During the running mode of the machine, it displays four numbers: running time, distance, speed, and incline.



When the running machine is not in the running mode, it displays information on how to start the machine.

When the running machine is unused, these 14 segment displays serve as moving sign to indicate how the user should activate the running machine to use it.

Microwave Oven | 7-Segment display

Microwave ovens use a four-digit 7-segment display, as shown in the photo for size comparison. It can be replaced with Opto Plus P/N OPS-Q4011YG ([0.4" Quad THT LED 7-Segment Display | Colon & Diamond Seg.\(OPS-Q4011YG\)](#)). The 7-segment display is primarily used to indicate the microwave

[HOME](#)[LED DISPLAY PRODUCTS](#)[SERVICE](#)[BLOG](#)[ABOUT](#)[REQUEST A QUOTE](#)[CONTACT](#)[中 \(TW\)](#)

7-Segment display English Alphabet Application Example | Microwave | ...





OPTO PLUS LED CORP.

HOME

LED DISPLAY PRODUCTS

SERVICE

BLOG

ABOUT

REQUEST A QUOTE

CONTACT

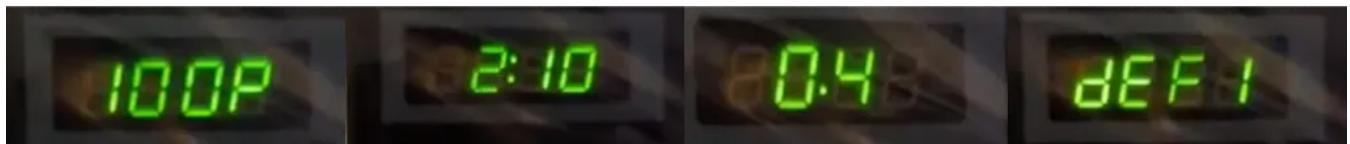
中 (TW)



OPTO PLUS LED CORP.



4-digit 7-segment display
with colon can show
multiple formats



Microwave power

Microwave time

Defrost weight

Defrost mode 1

The 7-segment display represents an example application in English | A simple Microwave oven operation flow chart.

Conclusion

Both the 7-segment display and the alphanumeric display are capable of representing Arabic numbers. However, the 7-segment display can only represent a portion of the English letters, while the alphanumeric display can represent all uppercase and lowercase English letters. Additionally, different English fonts can be chosen based on the product application. It should be noted that the 14-segment display and 16-segment display, which are types of alphanumeric displays, have higher costs. If the product does not require a large amount of information representation, using the 7-segment display to display English, along with appropriate design, can provide users with an intuitive product experience while also saving production costs.



Related article

[What is RGB SMD LED? | SMD LED Packaging | Full Series RGB LED Comparison Table](#)

[Introduce dot matrix display's name, type, internal structure, and application scene](#)

[Introduce each kind of 7-segment display, 16-segment display , and Internal structure!](#)

[Choose lowest-cost colored LED for your product. | low-cost LED color](#)

[Case-study – Custom LED display and module](#)

POSTED IN [LED DISPLAY DESIGN](#)

LEAVE A REPLY

COMMENT *



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)

NAME *

EMAIL *

WEBSITE

SAVE MY NAME, EMAIL, AND WEBSITE IN THIS BROWSER FOR THE NEXT TIME I COMMENT.

POST COMMENT

CATEGORIES

Attend Exhibition Information (7)

LED Display design (21)

LED Knowledge (8)

OPTO PLUS document (8)

Uncategorized (1)

GET THE LATEST POSTS

Email



HOME LED DISPLAY PRODUCTS SERVICE BLOG ABOUT

REQUEST A QUOTE CONTACT 中 (TW)

Opto Plus LED Corp.

7F-3., No.496, Bannan Rd., Jhonghe Dist., New Taipei City 23556, Taiwan (R.O.C.)

Tel: +886-2-22225698 Fax: +886-2-22222566 Email: sales@opledtw.com

© 2020 Opto Plus LED Corp. All Rights Reserved.

Powered by AddMaker