

# THE NEW RULES OF CARDIO CONSOLES

Win new business and lower maintenance costs by meeting the changing wants of today's cardio equipment users

**CALORIES**  
People read left-to-right. Place calories burned in top left—it's the first place the eye goes.

**LED BAR**  
Longer space for natural language communication.

Center is home to the most used buttons, in "can't miss 'em" size. Why the quick keys are set where they are.



**ALL BUTTONS**  
Must be durable. Test 1 million times or more!

**WORKOUTS**  
Intervals & hills are must-haves. Make fast & easy to find.



**VISUAL HIERARCHY**  
TV controls used less, put to lower side.

**APPLE GYMKIT™**  
Pairs Apple Watch® to machine almost instantly.

**BLUETOOTH**  
Millions of headsets sold each month. Must sync quickly.

**MAGAZINE TRAY**  
Today used more for smartphones and tablets.

**CHARGER INPUT**  
Cap keeps out sweat, prevents corrosion.

**GO BUTTON**  
Biggest, most noticeable.

**DIFFERENT COLORS**  
Stop and cooldown also must be big.

# WHY WE'VE OPENED UP OUR NOTEBOOKS

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## WHAT'S NOT NEWS

### The revolution in digital devices is changing everything and everybody.

AS A BUYER, owner, or decision-maker at any facility with exercise equipment, you've seen this firsthand. You know millions of people buy an Apple Watch®

every month. You're aware of the stratospheric rise in fitness apps and their users. You can't miss these trends, because you witness them every day.

## WHAT IS NEWS

### The influence of those digital devices runs far deeper than you think.

CONSUMER EXPECTATIONS ABOUT commercial-grade exercise equipment, including cardio machine consoles, are shifting in surprising ways as a result.

Because for every obvious change—such as people wanting a treadmill or bike console to pair with their smartwatch—there are less obvious second- and third-order effects. For example...

- The curious way flatscreen TVs change a consumer's view of console design.
- How websites and apps condition users to expect even faster speeds, and a particular presentation format for information.
- Convenience and ease-of-use are job #1—but can be taken too far.

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## Millions of Workouts Per Day Show...

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THESE CHANGES ARE subtle but real. Research indicates their influence is growing.

What research? Well, every year, Life Fitness conducts thousands of hours of user studies. They happen in labs, gyms, and homes worldwide. We also aggregate millions more data points from connected equipment around the globe. Together, this web of information paints a picture about where exerciser preferences are today—and where they are heading.

During the development of our latest LED console, the Integrity SL, it became clear that we had to share these findings with our partners and potential customers. They were simply too important to keep under wraps.

The intent of this guide is to explain what we found. Along the way, we'll open up our design notebooks and show what "good" looks like according to today's user studies. And we'll provide insights into the key traits that lead to more reliable machines and satisfied exercisers.

Yes, everything is changing. But all of us in fitness know change can be a force for good.

Together, we help people improve their bodies, minds, and lives. This guide will help ensure they continue to turn to your facility for that help for years to come.

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# 1

**RULE**

## THE F.I.R.S.T. THINGS A USER MUST SEE



**AN EXERCISER STEPPING** onto a new cardio machine is like a hiker at a trailhead. They'll stop and read the map if they have to. But really, they just want to get going.

A good console is like a clearly marked trail map. And there are five traits a console should display from the **F.I.R.S.T.** moment a person steps onto the machine:

### Familiar

Users can easily recognize the machine and what's available to them, no matter the equipment

### Intuitive

Messages help them understand *exactly* what to do next

### Reliable

Operations work on command with no hassle (for users or maintenance staff)

### Simple

Doesn't overwhelm the user with unwanted or rarely-used features

### Tracker compatibility

Works with a user's devices, pairing up with them quickly

Meeting all of these needs in an instant is a challenge—one that must be taken seriously. Because other than the feeling beneath a person's feet (see "Let's Talk Table Stakes," page 8), no element of a cardio machine holds more sway over a person's training experience quality than the console.

With facility owners fighting to win back customers scared off by the pandemic and facing a growing army of "just train at home" competitors, the last thing you can afford is to have a new client's trial membership tripped up by a bad workout experience.



### FAST FACTS

## The Rapid Growth of Personal Devices

No wonder "wearable devices" have ranked as the top trend influencing fitness every year for four of the past six years, according to the American College of Sports Medicine (ACSM). The staggering numbers on the growth of personal digital devices include:

340

MILLION

People bought new smartphones during Q1 2021

14

MILLION

Smartwatches sold during Q1 2020

+200%

Sales increase of Bluetooth® headphones during 2019

60

MILLION

Number of Apple AirPods® sold (same year)

55%

How many of those smartwatches were Apple Watch®

\$4.4

BILLION

Value of global fitness app market





**RULE**

# 2

## **DESIGN FOR THE 80/20 RULE OF CARDIO**



## Button Essentials



1. The Quickstart button is key. As the most-used feature on a console, it ought to be large and ideally set off by a distinct color.



2. Speed and Incline buttons need to be unmissable too. After all, most of the time, people are DIY'ing their way through a workout. They need to make changes easily – even when the person is tired, sweaty, and in motion.



3. Don't forget to stop! You want the stop and cooldown buttons equally visible and easy to hit. Because you never know when someone needs to take a timeout in a hurry.



**IF YOU WERE** to step into any fitness facility around the globe and watch people use the machines, you'd notice a pattern.

About 80% of cardio equipment users step on and hit the "Go" button.

It doesn't matter if we're talking about treadmills, ellipticals, or bikes. It doesn't matter if you're at a big gym with dozens of machines, or an upscale hotel with less than a handful. This rule holds true.

From this fact, there are three main takeaways one should keep in mind whenever they look at a console (see "Button Essentials," far right).

On any console, there needs to be a visual hierarchy. The highest-use items ought to be biggest and centered. Less frequent commands like preconfigured workouts, entertainment options, or items you need only once per session like device pairing, don't require that level of attention.

## Avoid Broken Buttons

LOOK FOR THESE FEATURES

The seemingly simple button can make or break an exerciser's experience. After all, what's more frustrating than pressing a button a half-dozen times—or feeling as if you're leaning your entire body weight into a push but it won't register? Or trying to navigate a hyper-sensitive keypad set that acts up with the slightest touch? Users have a better experience with console buttons when they:

### Are backed by biomechanics.

There's a recipe for how big the pressable center of a button ought to be compared to the overall size of a button.

### Follow the Goldilocks principle for pressure.

Not too much, not too little. Juuust right.

### Provide additional feedback

on-console, such as changing display text.

### Beep on successful pushes.

**FAST FACT** How we bulletproof our buttons. Every component button selected for use inside a Life Fitness treadmill must first undergo a rigorous array of tests, which includes the Million-Push Mash-up. To pass, a button must prove it can take a million thumbs to the dome and be just as responsive as it was on push number one.



**Sleek matters.**

Consumers are accustomed to 60-inch flatscreen TVs being an inch thick (or less). If they see a cardio console that's thicker, they think it's from the last century.

# RULE 3

DON'T FORGET ABOUT THE **ROAMING 20'S**



**WHILE QUICKSTART IS** the main thing, it's not the only thing. Your console needs to have a strategy for engaging that other 20% of users who don't just hop on and DIY—especially if your club welcomes newbies or weight loss clients, who often do cardio to meet a specific time or calorie burn requirement.

**This audience wants:**

- Variety to help the time within a workout go by faster
- New challenges to keep cardio interesting from week-to-week

- Ease of use so they don't have to dig through a bunch of menus to get going.

The trick is providing them with a quick pathway to tried-and-true preconfigured workouts like intervals, hills, or heart rate workouts without crowding the console navigation.

If your facility serves those who serve, you'll want to pay special attention to preconfigured workout options. U.S. military branches, police and fire departments have standardized cardio tests that their personnel will want available.



**RULE**

# 4

HELP  
USERS STEER  
CLEAR OF  
**UNWANTED  
HEADGEAR**



**WHILE MORE EXERCISERS** sport AirPods® or other Bluetooth® headsets, there's one piece of gear no user wants to wear onto your machine: A set of reading glasses.

Good readability on a console is all about contrast. That's why the LED displays of old, which had an amber color to them, don't cut it today. Soft yellow on black isn't so easy to read as white on a

black background. In fact, nothing "pops" more than black and white.

But here's one thing to keep in mind about LED consoles. Just like coffee, diamonds, and organic food, sourcing matters. Some manufacturers will secure different LEDs from different batches, and place them all inside a single display. The result? Variations in tint, color temperature and brightness that make messages harder to read. (They also just don't look as polished.)

» **FAST FACT** Life Fitness ensures all LEDs within a unit come from a single batch. And every LED used is a True White LED, which is the clearest and most readable of all LEDs.

# 5

**RULE**

ALWAYS  
FIND WAYS  
TO **SAVE  
MAINTENANCE  
TIME**



**HERE'S A HARD-WON** lesson from more than four decades of making cardio machines. Gyms are tough environments, and machines get beat up. A lot of that damage takes place at the console, which is simultaneously the most sensitive piece of equipment (housing all of those chips and circuit boards), and the most directly in the line-of-fire for sweat, dirt, debris and cleaning products (which are nearly as harsh).

To tell whether a console will help save you headaches—or be a source of them—examine the following:

**Will the jacks get jacked up?**

Headphone and USB ports are pathways to great entertainment features, but they can also easily fall victim to rust or corrosion—especially with cleaning crews spraying down units several times



## RULE 5



a day. Caps that cover these ports are a good way to extend the unit's life. (And they come standard on every Life Fitness Integrity SL.)

**Are your machines and crewmembers speaking the same language?** Some console displays can only offer diagnostics in the form of a nebulous status code. By having a larger LED screen that can speak in words and not machine language, your techs can more quickly and efficiently diagnose a problem.

***Ooh, is that going to leave a mark? Drag your fingernail across a cheap console surface and it could leave a scratch.***

**Ooh, is that going to leave a mark?** Drag your fingernail across a cheap console surface and it could leave a scratch. Wedding rings, watches or a Fitbit® can also damage a subpar surface if they collide at the right speed. And that's to say nothing of the cumulative wear-and-tear that can result from sweat, grime, cleaning products, and paper towel wipe-downs. Helpful tip: Look for a durable back painted surface, where the writing is on the inside rather than the outside.

**Is there an app for that?** Your maintenance team can stave off issues before they start with the help of Halo Facility Asset Management. This cloud-based solution doesn't just monitor machines and ensure they're in tip-top shape, it also provides a portal for managing business operations and gives you new means for communicating with members.



## Let's Talk Table Stakes

*Beyond the console—what every exercise machine must do*

**Feel great underfoot.** For treadmills, this means having a deck that is cushioned yet responsive, offering just the right amount of give on each step. Cycles are all about achieving KOPS, or "knee over pedal spindle." Ellipticals need to provide a path

of motion that mimics running without impact. If it doesn't feel good, it won't work for anybody.

**Be fast.** We're not talking about top speed here. Rather, how quickly can the machine get you to your workout. People won't

tolerate slow boot-up times from computers or websites—in fact, numerous studies show that if a site won't load quickly enough, users are OUT.

**Be seen and not heard.** No one likes a gym full of overly loud cardio.

**Provide a smooth ride.** Consistent speed/rotation.

**Be inviting and provide reassurance.** Have safety bars and a pull-stop feature.





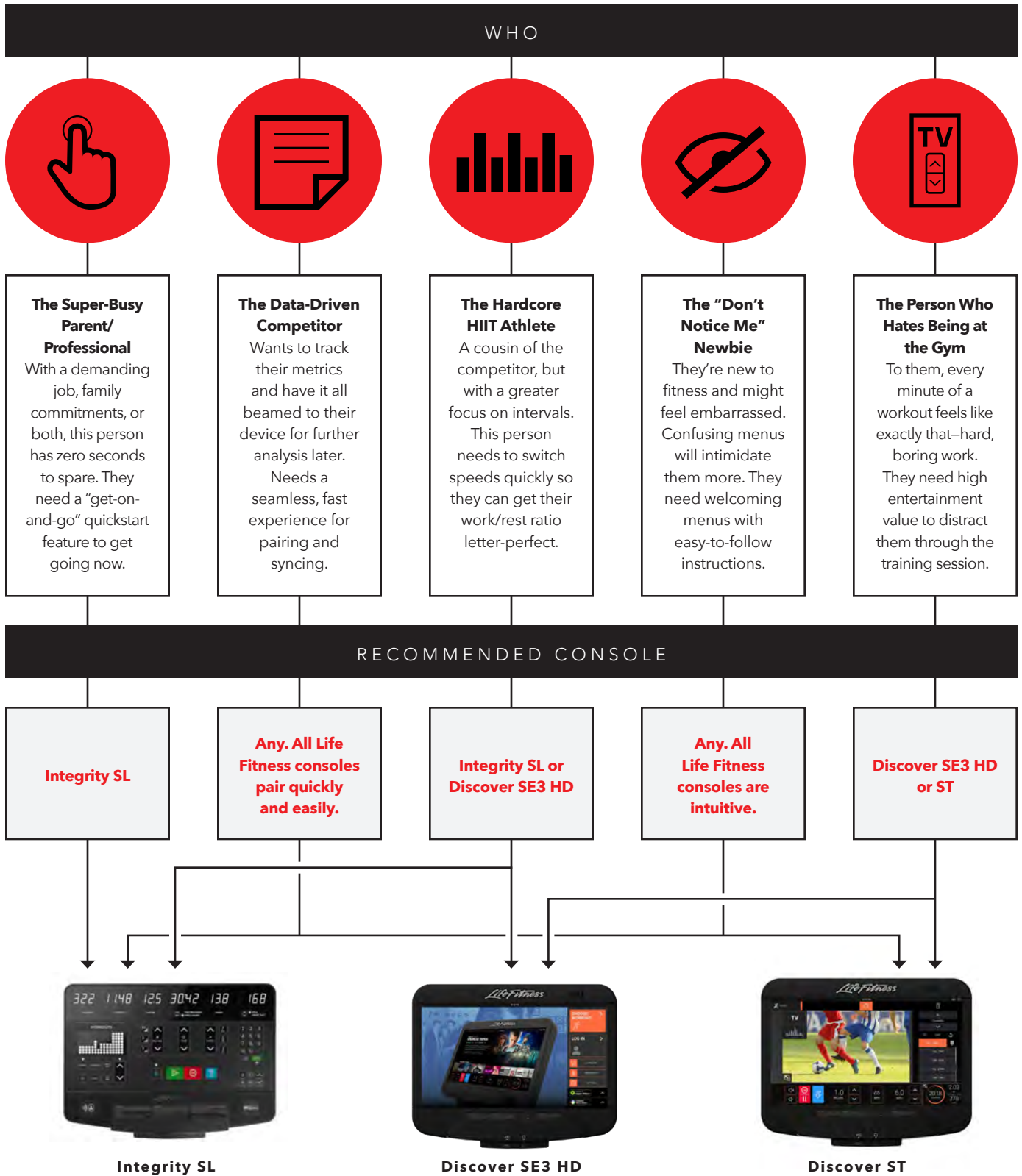
6  
RULE

**SATISFY THE FIVE TYPES  
OF PEOPLE YOU'LL MEET  
IN EVERY FITNESS CENTER**

**RULE 6**



**WHILE NO TWO** trainees are the same, certain people tend to have similar backgrounds, goals, or life situations shaping their needs. Decades in the gym and millions of trainee datapoints show you must always design with five people in mind:





**RULE** 7

PROVIDE  
**MORE  
SYNC'ING  
WITH LESS  
THINKING**



**HOW MANY PEOPLE** really enjoy waiting for devices to pair?

Right, nobody does. Which puts console buyers like you in a bit of a pickle. You need gear that plays nice with every device—and does so quickly. Thankfully, there are more technologies becoming available that make this faster and easier. They include:

**Bluetooth® and BLE**

Bluetooth®, by now, you're surely familiar with. On a treadmill this technology is the express route for hooking up a wireless audio



## RULE 7



headset. Meanwhile, BLE is short for “Bluetooth® Low Energy”, a short-range technology that enables small devices (like a heart rate strap) to exchange data wirelessly. The “Low Energy” just means it stays in sleep mode unless there’s a connection initiated, which means better battery life.

### ANT+

Like Bluetooth®, ANT+ lets wireless devices “talk” and relay data to each other. The big difference: Where Bluetooth® is one-to-one (meaning a machine can connect to only one device), ANT+ is one-to-many. This means you could connect several devices (like a smartwatch and a heart rate monitor) to your treadmill, and still have the Bluetooth® channel open for your Beats by Dre.

### NFC

You’ve used this—it’s on every smartphone—you just don’t know about it. NFC stands for “Near Field Communication,” and it’s yet another way for devices to quickly swap data—no wires necessary. Perhaps best known for enabling Apple Pay® and tap-to-transact credit cards, the big advantage of NFC is that it doesn’t require pairing. Once the devices are within range (which is small, about 4 inches), they immediately communicate.

### Apple GymKit™

With Apple GymKit™, consoles house a landing pad for pairing an Apple Watch®. The machine and watch combine each other’s strengths to form something even more powerful. The cardio equipment accurately records speed and distance, while the watch tracks heart rate and other biometrics. And all of it stays private to your device.



## UX Testing Means Better Quality for U and Me



**GREAT DESIGN NEVER** stops. In fact, the development of our latest LED console—the Integrity SL - took more than 3 years and involved tens of thousands of hours of user studies.

In fact, testers logged more than 2,100 hours at one participating site, a YMCA outside Chicago.

Many more insights came from a dedicated squadron of “home testers.” And inside our headquarters, an analytics team is constantly monitoring user data to see what’s working and what needs to be better.

We also test units for reliability. For example, Integrity SL components underwent more than 275 days of hardware testing. Along the way, we brutalized the console surface with heat, cold, vibration, exposure to liquid and cleaning chemicals. Each button had to pass a “Million-push Test” before it could be approved for the final design.

On the software side, we worked through more than 1,000 different user menu processes before we were convinced the process was as streamlined as possible.

# THE CONSOLE QUALITY CHECKLIST

**FOR ANY NEW CARDIO EQUIPMENT, ASK THESE QUESTIONS BEFORE YOU BUY.**

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**1. What's your boot up time?**

If it's beyond 10 seconds, be concerned.

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**2. What comes standard?**

Many manufacturers lure you in with a low price on a "base" package and then nickel-and-dime you with added features. Trouble is, those features are things like device connectivity. With millions more people buying Apple Watches and smartphones every month, they know your clients want it, so you'll pay.

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**3. What happens if something goes wrong?**

You want assurance that your units will arrive on time and in full—and know what your options are if they don't make it. You also want crystal clarity on what's covered under the warranty, and what support the manufacturer provides if a quality issue arises.

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**4. How many workouts come hardwired with the unit?**

Remember, 1 out of every 5 exercisers will look for the equipment to dictate their workout. The unit should offer enough preset training to keep it interesting, with a clear path for finding it.

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**5. What was their user testing process?**

Everyone will tell you their menus are simple and intuitive. How do they know that? (For example, at Life Fitness

we tested more than 1,000 menus to streamline the workflows. Making something easy is hard work!)

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**6. How do you know it's durable?**

Scratched, faded, or broken gear brings down the look of your whole gym. When you bring in a new console, you want to know its already been battle-tested. A manufacturer should share their reliability testing process in detail.

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**7. What is the maintenance experience like?**

Unplanned machine downtime is a headache for everyone from customers to staff. Units can save you hassle by providing preventative maintenance metrics and easy-to-spot service alerts.

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**8. Do your LEDs all come from a single batch?**

Remember: Multiple batches mean noticeable differences in color tint and brightness.

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**9. What devices does it work with?**

At a minimum, you'll want to hear: Bluetooth®, Apple GymKit™, ANT+, Garmin® and Polar®.

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