

The Ultimate Hardware Selection Checklist

We've collected the most important questions to consider before selecting the hardware platform for your project. Armed with answers to these questions, you'll be in the best position to choose your ideal computer solution.

Application

Knowing how the hardware will be used will help inform system selection.

- What will the system be used for? (Machinery, Data logger, HMI, Edge Device, etc.)
- What will the computer actually be doing once installed?
- What other systems or hardware will it be connecting to? (Peripherals, Gateways, Networks)
- Where will the data live? (On the system? On a central server? In the cloud?)

Environment

Understanding where the computer will be installed will influence the level of ruggedness required.

- What type of environment do you plan on installing this system in?
- What are the extreme low and extreme high temperatures of your deployment environment?
- Any moisture in the environment? Direct water contact?
- Any vibration or shock? (Will it be installed in a vehicle or in another vibration or shock-prone location?)
- Will you utilize an additional enclosure?
- How do you plan to mount the system?

Technical Requirements (in general hierarchy of importance)

Some technical requirements may be obvious, others may present themselves as the project evolves.

- Do you have a processor manufacturer preference? (Intel, AMD, ARM)
- What level of processing will you need? (Intel Atom, Celeron, Core i3/i5/i7/i9 Xeon or AMD Ryzen, EPYC)
- Does your application require a graphic processing or vision processing unit? (GPU or VPU)
- Which and how many I/O ports will you need? (LAN, Serial Ports/COM, Video Outputs, USB [Type A or C?])

- ❑ How do you plan to power the system? (AC Adapter or direct input?)
- ❑ What type of input voltage will you be providing? (12V, 24V, 48VDC)
- ❑ How much storage do you need? (Hot-swap, multiple drives, RAID)
- ❑ How much memory do you need?
- ❑ Will you require wireless connectivity (Wifi, Bluetooth or 4G)
- ❑ Do you require an operating system? (Windows or Linux & what flavor?)
- ❑ What other software will you be using?
- ❑ Will you want the software image applied prior to shipping?

Time Frame

In addition to the right-fit hardware solution, it's important that your hardware provider can meet all of your project expectations, including timing.

- ❑ When do you need to have a prototype in-house?
- ❑ Once you've received the prototype, how long do you anticipate your testing phase will last?
- ❑ After approving the prototype, when do you anticipate moving to full roll-out?
- ❑ Are there lead time limitations? Other than "as soon as possible," how quickly after ordering would you require fulfillment based on project timelines?

Quantity

The number of systems you require may impact lead times, fulfillment requirements and of course budget.

- ❑ How many systems do you plan to need to complete your project?
- ❑ What are your anticipated order sizes?
- ❑ What is your anticipated order frequency?

Lifecycle Needs

Particularly for industrial applications, the lifecycle of your chosen system, and its components, is a vital consideration.

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- How long do you expect to be purchasing your chosen configuration?
- Will re-certification or other re-evaluation be necessary if a component of the system changes?
- Is your project otherwise revision sensitive?

Budget

Keeping budget targets front of mind will help inform configuration decisions throughout the selection process.

- Do you have a fixed budget for this project?
- Do you have a price-per-system target in mind?

Other Services Required

Be sure to consider the other service options that can be added to create your ideal hardware solution.

- Do you want to have the systems branded with your company logo or colors?
- Do you have any custom labeling requirements?
- Will there be additional engineering required to create the right solution?
- Are there particular industry or regulatory certifications you require?
- Will you require dropshipping directly to your end user(s)?

Decision making process

Knowing the individuals and processes involved in your hardware decision will aid in efficient selection and configuration.

- Who are the primary decision makers? (Individual or group?)
- What is most important to you in choosing a hardware platform and partner?
- Has the hardware project already been approved internally, or is approval contingent on a viable hardware solution?

Other Existing Challenges

Examining existing challenges will help you, and your hardware provider, avoid them going forward.

- Have you been using a previous solution for this project? If so, what was it?
- What was good about the previous solution and what needs improvement in the new solution?
- What prompted you to change hardware?

Ready To Start Building?

Once you've considered these questions, contact us for help in choosing the OnLogic system that's right for you, or browse our hardware by clicking below.



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