

# "Build or Buy?"

#### A Smart 15-Minute Worksheet for Founders and Inventors

Not every great product needs to be engineered from scratch. For founders and inventors on a budget or deadline, it may make more sense to adapt, license, or buy existing technologies. But in some cases, custom design is the only way to build long-term value, control, and innovation.

Use this worksheet to clarify which path makes the most sense for your goals. For every question below, answer honestly. Each example is there to help you understand how it applies to your project.

# 1. Is your product's value tied directly to its hardware uniqueness?

Simple: You're building a medical sensor with a novel diagnostic approach.

A bit more complex: You're building a smart plug-hundreds exist and perform identically.

# 2. Are there no existing modules or boards that do 75% of what you need?

Simple: You've searched DigiKey, Mouser, and Arduino forums and found nothing close. A bit more complex: A \$19 breakout board handles nearly all the logic your design requires.

# 3. Will controlling every feature or behavior give you a market edge?

Simple: You're designing a timing-critical aerospace device.

A bit more complex: A generic microcontroller with off-the-shelf firmware already does what you need.

#### 4. Are you planning to patent or license your own design later?

Simple: You've validated a unique design and plan to protect or sell it.

A bit more complex: You're basing your idea on publicly available modules and code.

## 5. Do you need long-term control over how it's built, fixed, or scaled?

Simple: You plan to manufacture in-house or need exact BOM traceability.

A bit more complex: You're okay relying on whatever prebuilt module is available at the time.

### 6. Are you comfortable spending 2-6 months on development?

Simple: You're building a product roadmap and have a clear budget and window.

A bit more complex: You're trying to ship in 6 weeks with no room for iteration.

### 7. Do you have budget flexibility for design, testing, and prototyping?

Simple: You've set aside \$10k-\$50k and plan to iterate intelligently.

A bit more complex: You're hoping for a one-shot \$2,000 fixed-fee solution.

#### 8. Are you targeting a niche or high-performance market?

Simple: You're building for medtech, aerospace, or scientific tools.

A bit more complex: You're selling a household accessory into a saturated B2C market.

## 9. Is branding and product appearance important to your customers?

Simple: You're building a product for consumers, and aesthetics will influence trust.

A bit more complex: Your users never see the product-it's buried inside an enclosure.

# 10. Have you researched available prebuilt systems and found them lacking?

Simple: You've reviewed 4+ existing solutions and confirmed they don't fit.

A bit more complex: You haven't looked yet-or dismissed existing options out of frustration.

## Scoring:

Use your total score to understand how much of your idea truly demands a custom build-or whether you could get further, faster, by adapting what already exists.

## 0-3 points:

Simple: You're likely better off licensing, adapting, or integrating existing modules or systems.

A bit more complex: If your idea is flexible, you may still get to market quickly using modified tech and smart packaging.

#### 4-7 points:

Simple: You may benefit from a hybrid approach-custom where it counts, off-the-shelf where it doesn't.

A bit more complex: Consider working with a consultant to validate which parts of your design should stay modular vs custom.

#### 8-10 points:

Simple: You're building for performance, control, or long-term IP value. Custom design is likely worth the investment.

A bit more complex: If your application involves compliance, special testing, or certification, expect a longer development path-but also stronger differentiation.

Still unsure? We can help you evaluate your options honestly-before you spend a dollar on development. 801-414-9597 | tce@celticengineeringsolutions.com