

Embedded System Code Review

Code Review

- Code Review
 - ..
 - Look for
 - Code style & readability
 - Bugs & error handling
 - Maintainability

Look for (1)

- ..
 - Shared data between multiple threads must be protected if it changes.
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 - Global variables tightly couple parts of the code, making it hard to understand and reason about.
 - This is bug prone, especially during maintenance.
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 - Critical sections exclude others from access resources; minimize the time where lock is held.

Look for (2)

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 - Split functionality into smaller modules to reduce cognitive load and improve code reuse.
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 - Seg faults and memory leaks are easy to code if unclear who allocates and frees memory.
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 - Simple logic is easy to write, debug, and maintain.
- Clean shutdown logic (modules & application)
 - Shutdown is hard; easy to lock up or forget to free resources.
 - Clean logic makes it easier to get right.