

# Preliminary Design Review

Again, the purpose of the **PDR** is to **demonstrate** that you are ready to **immediately** proceed to **detailed schematic level design**.

If you are the **systems engineer**, you demonstrate readiness by proving that:

1. You have a complete and detailed **functional decomposition** of your system, resulting in complete and detailed level 0, level 1, and level 2 (**at least**) functional schematic diagrams.
2. You have a complete and detailed **interface document** specifying how **each element** of the functional schematic diagrams are interconnected.
3. You have a complete and detailed **technical specification** for **each element** of the functional schematic diagram.
4. You have a **plan for testing and evaluating** the system and its functional elements.
5. You have completed any **system level analysis** required to evaluate and/or **demonstrate** system level performance.
6. You have identified the **high risk** elements of the system design, and have constructed a **risk mitigation plan**.

If you are a **design engineer**, you demonstrate readiness by proving that:

1. You have a detailed and specific **design concept** (e.g., circuit block diagram) for **each functional element**.
2. You have performed any **analysis** required to evaluate and/or demonstrate the efficacy of these design concepts.
3. You have identified all **critical components** or **tools** necessary for accomplishing each functional design element.
4. You have identified the **high risk** elements of your conceptual design, and have constructed a **risk mitigation plan**.

If you are the **project manager**, you demonstrate readiness by proving that:

1. You have a complete and detailed **decomposition** of your project **tasks** (i.e., a **WBS**), resulting in complete and detailed level 0, level 1, and level 2 (**at least**) subtasks.
2. You have a **project schedule** that includes all WBS elements, as well as project **milestones**.
3. You have a project **org chart** that indicates the **responsibility** of each team member, including function schematic elements and WBS elements.
4. You have identified the **high risk** elements of the project plan, and have constructed a **risk mitigation plan**.

All project documents and plans must be submitted **prior** to PDR.