Door\_Controlling Logic

Door\_Control logic is responsible for monitoring the status of a door and controlling the Fan motor heater and water inlet valve in the machine.

**Door Status Check**

* (IS\_DOOR\_CLOSED() == TRUE) This condition checks whether the door is closed. It appears to be a function call that returns TRUE if the door is closed, and it is FALSE, if it's open.
* DoorStatusCounter is decremented if it's greater than zero, and if it reaches zero, Is\_Door\_ClosedFlag is set to TRUE, indicating that the door is closed. If it's not zero, the flag remains FALSE.

**Door Status Actions**

* If Is\_Door\_ClosedFlag is TRUE, it means the door is closed. In this state doorStatus is set to E\_doorClosed.
* MachineStatus->DOI is set to FALSE, which seems to be an indication that the door is closed.
* A series of checks and actions related to the machine's state and components are performed, including checking the OpenRequest flag and restoring previous states of components if ovenPauseControl is TRUE.

**If the Door Is Open**

* If Is\_Door\_ClosedFlag is FALSE, it means the door is open. In this state doorStatus is set to E\_doorOpen.
* MachineStatus->DOI is set to TRUE, indicating that the door is open.
* A check for OpenRequest is performed, and if it's FALSE and the ovenPauseControl is FALSE, it calls the doorPauseControl function.

**doorPauseControl Function**

* This function appears to handle the pausing of the cooking process when the door is open and certain conditions are met.
* It stores the current states of various machine components into variables, likely to later restore them.
* It updates MachineStatus->MachineStaus to MS\_cookingPaused.
* It performs actions to stop or close certain machine components, such as drain valves, fans, heaters, and water inlet valves.
* It sends the machine status, possibly for monitoring or reporting purposes.