Read Sections 4, 8, 10, & 11 of Atmel-42618-SmartConnect-ATSAMW25-MR210PB\_Datasheet.pdf

Read Sections 4 & 9 of Atmel-ATWINC1500B-MU-Y-datasheet.pdf

Read Sections 6, 35, & 37 of Atmel-ATSAMD21G18A-AU-datasheet.pdf

**What is the difference between recommended and absolute ratings?**

Recommended ratings are the average case values of operating and environmental conditions. These values are used by manufacturers to compute estimated life, accuracy, or other metrics related to the product.

Absolute ratings are limiting values of operating and environmental conditions which should not be exceeded under the worst probable conditions. Stresses above those listed under Absolute Ratings may cause permanent damage to the device.

What is the maximum voltage you can apply to a pin on the SAM W25? What is the power supply voltage in that case?

For the SAMW25, what is the difference between the VBATT & VDDIO pins?

What voltage will you supply to these?

How much current do you anticipate to be drawn in the highest current draw situation?

Why might you want to use separate voltage sources for VBATT & VDDIO?

How many reset lines are on the SAM W25? What does each do?

Given what you know about button debouncing & default pin states, what additional circuitry would you put on these reset pins? Note: include a physical button for manual resets.