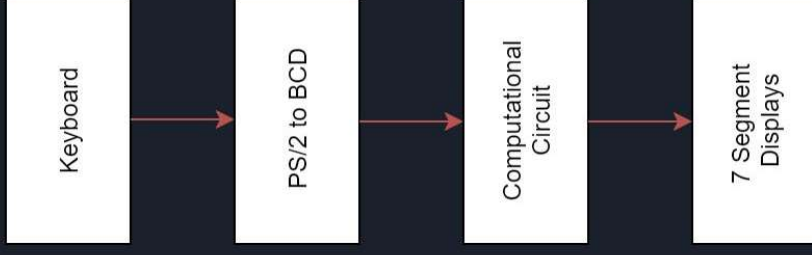




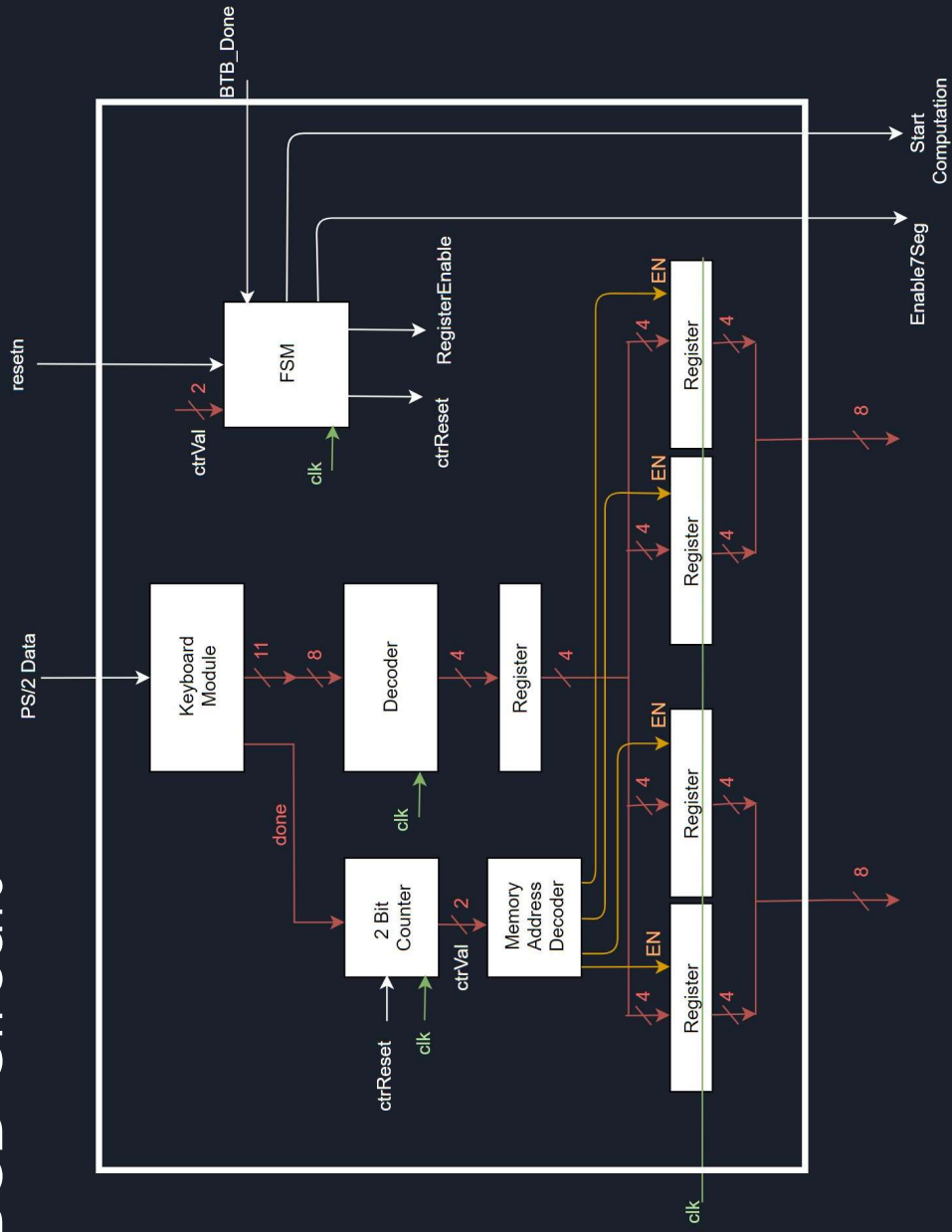
KEYBOARD SCAN-CODE COMPUTATION

By David Lewis and Andrew Meesseman

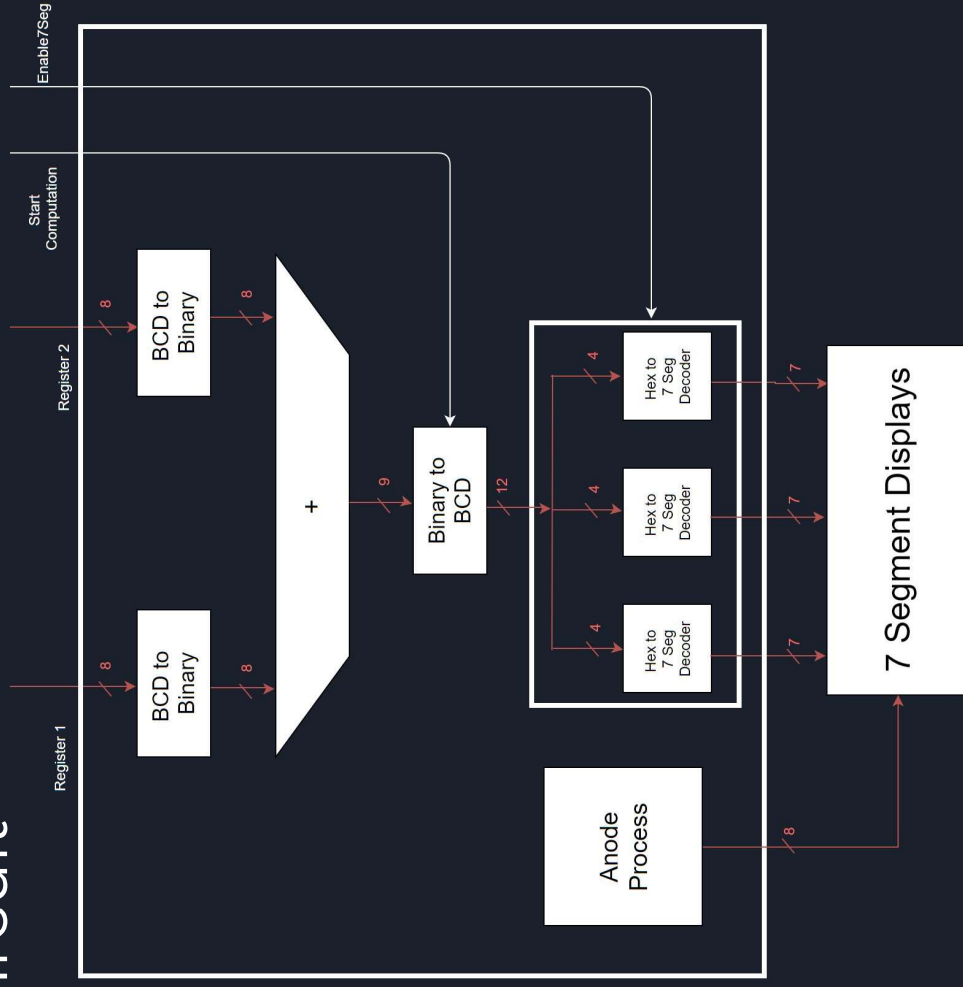
Basic Block Diagram



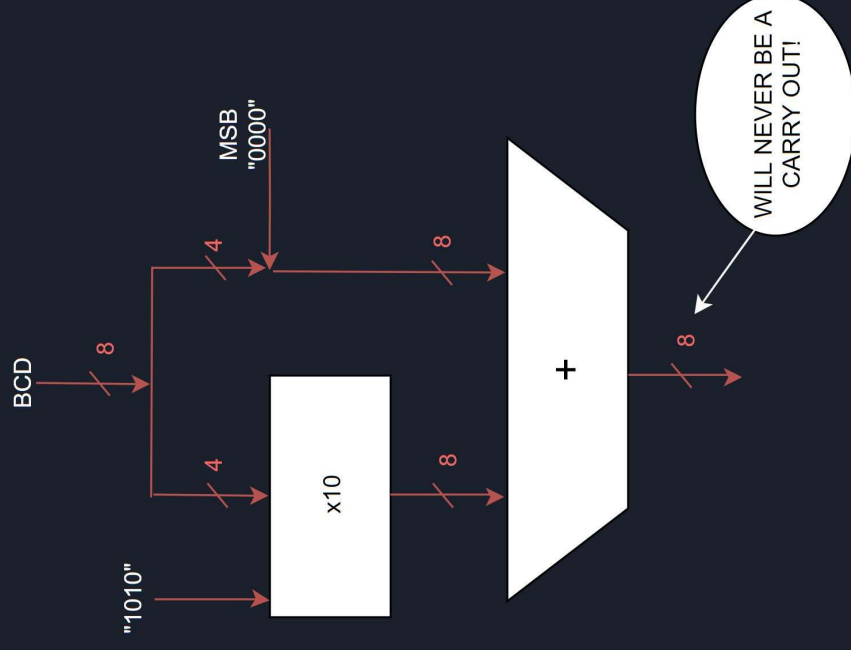
PS/2 to BCD Circuit



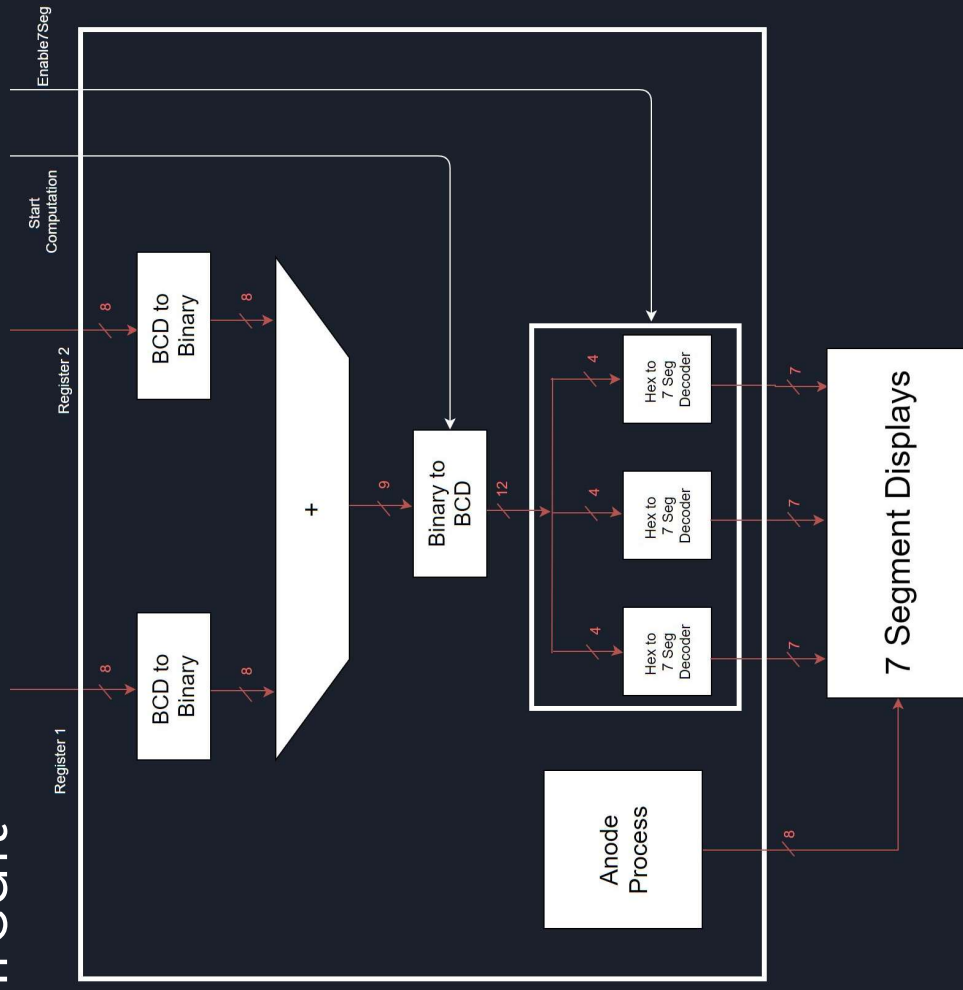
Computation Circuit



BCD to Binary Circuit



Computation Circuit



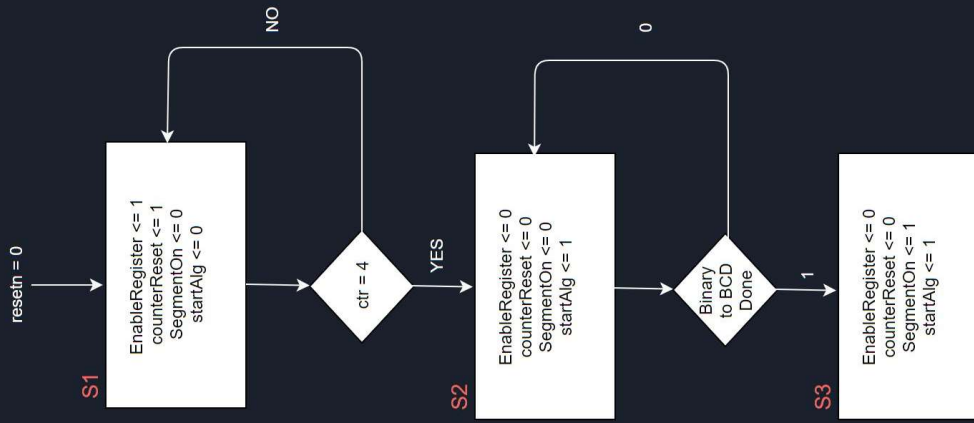
Binary to BCD Algorithm

100's	10's	1's	Binary	Operation
			1010 0010	 162
		1	010 0010	<< #1
		10	10 0010	<< #2
		101	0 0010	<< #3
		1000		add 3
	1	0000	0010	<< #4
	10	0000	010	<< #5
	100	0000	10	<< #6
	1000	0001	0	<< #7
	1011			add 3
1	0110	0010		<< #8

 **1**

 **6**

 **2**





References

- <https://reference.digilentinc.com/reference/programmable-logic/nexys-a7/reference-manual>
- <https://pubweb.eng.utah.edu/~nmcdonal/Tutorials/BCDTutorial/BCDConversion.html>



Questions?

