

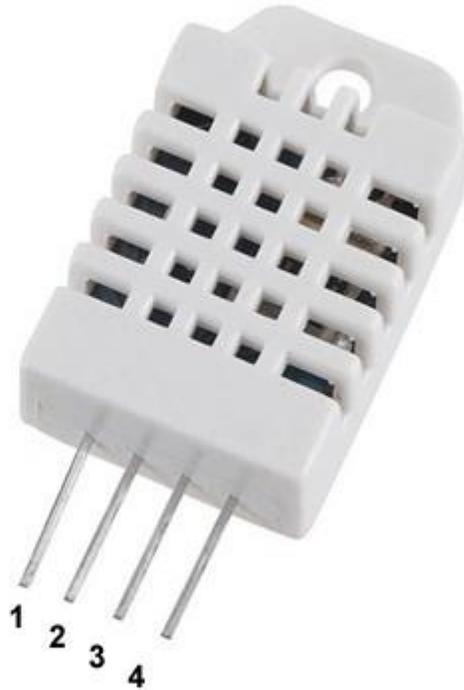
The TH Logger

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Final Project: ECE 378
Professor: Dr. Llamocca

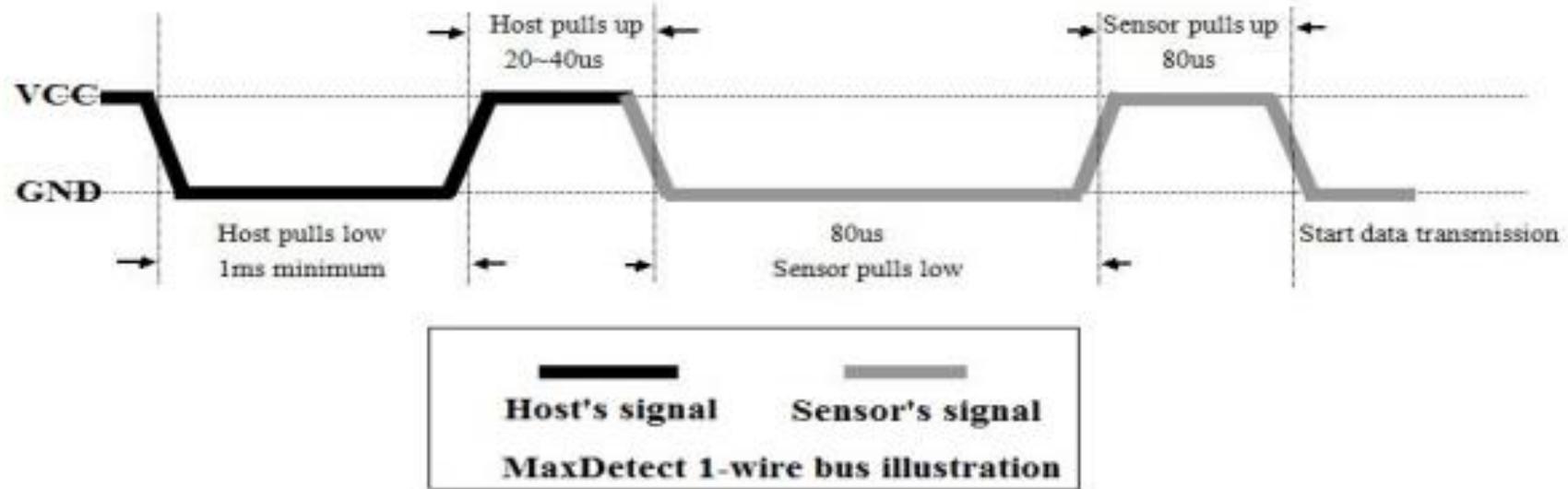
External Temperature and Humidity Sensor (RHT03)

DHT22 pins	
1	VCC
2	DATA
3	NC
4	GND

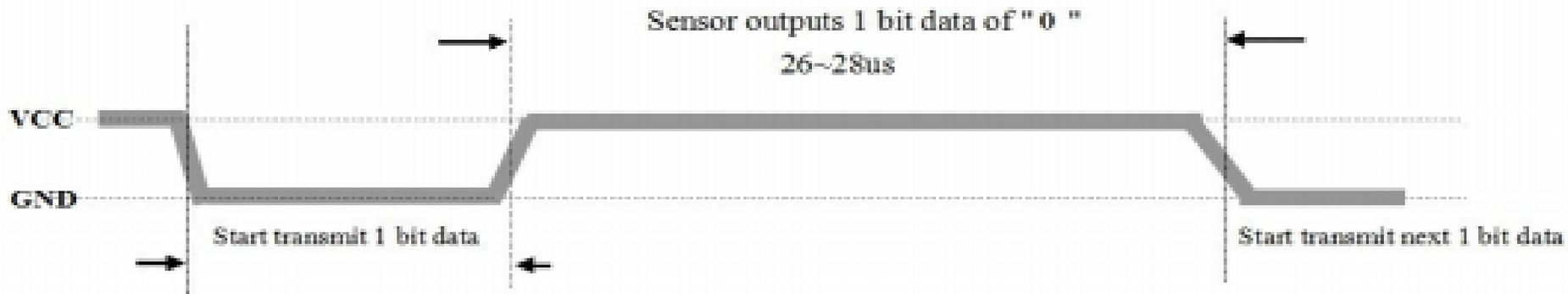


Model	RHT03
Power supply	3.3-6V DC
Output signal	digital signal via MaxDetect 1-wire bus
Sensing element	Polymer humidity capacitor
Operating range	humidity 0-100%RH; temperature -40-80Celsius
Accuracy	humidity +-2%RH(Max +-5%RH); temperature +-0.5Celsius
Resolution or sensitivity	humidity 0.1%RH; temperature 0.1Celsius
Repeatability	humidity +-1%RH; temperature +-0.2Celsius

Initial Transmission



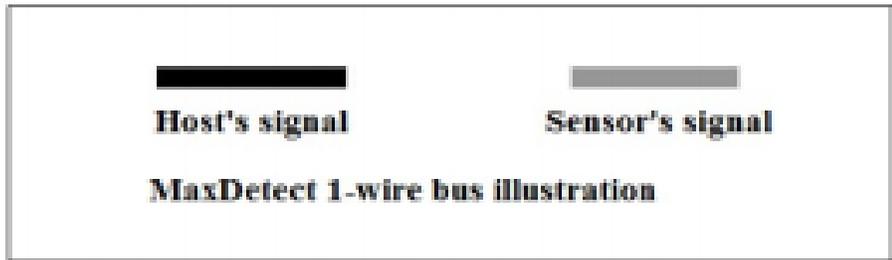
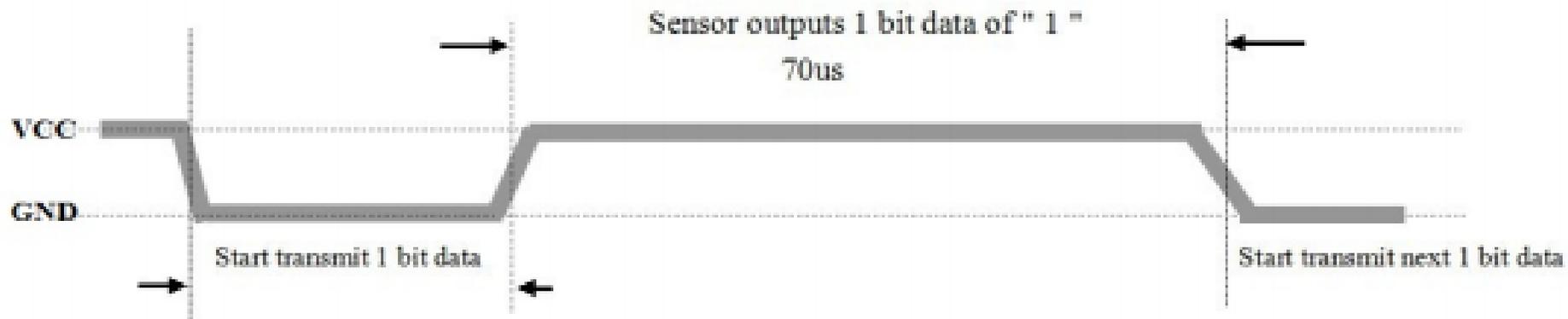
Detecting a '0'

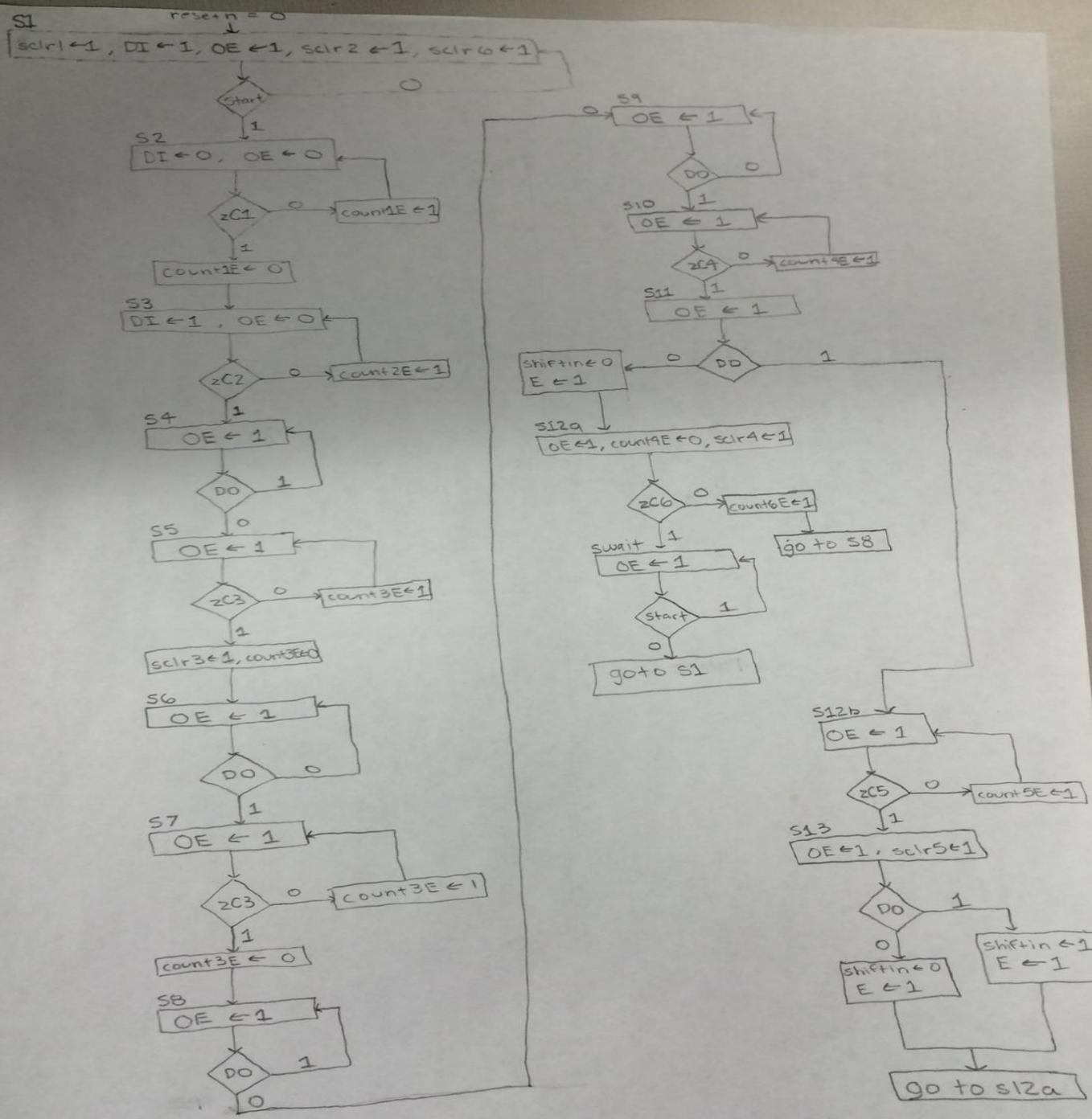


Host's signal **Sensor's signal**

MaxDetect 1-wire bus illustration

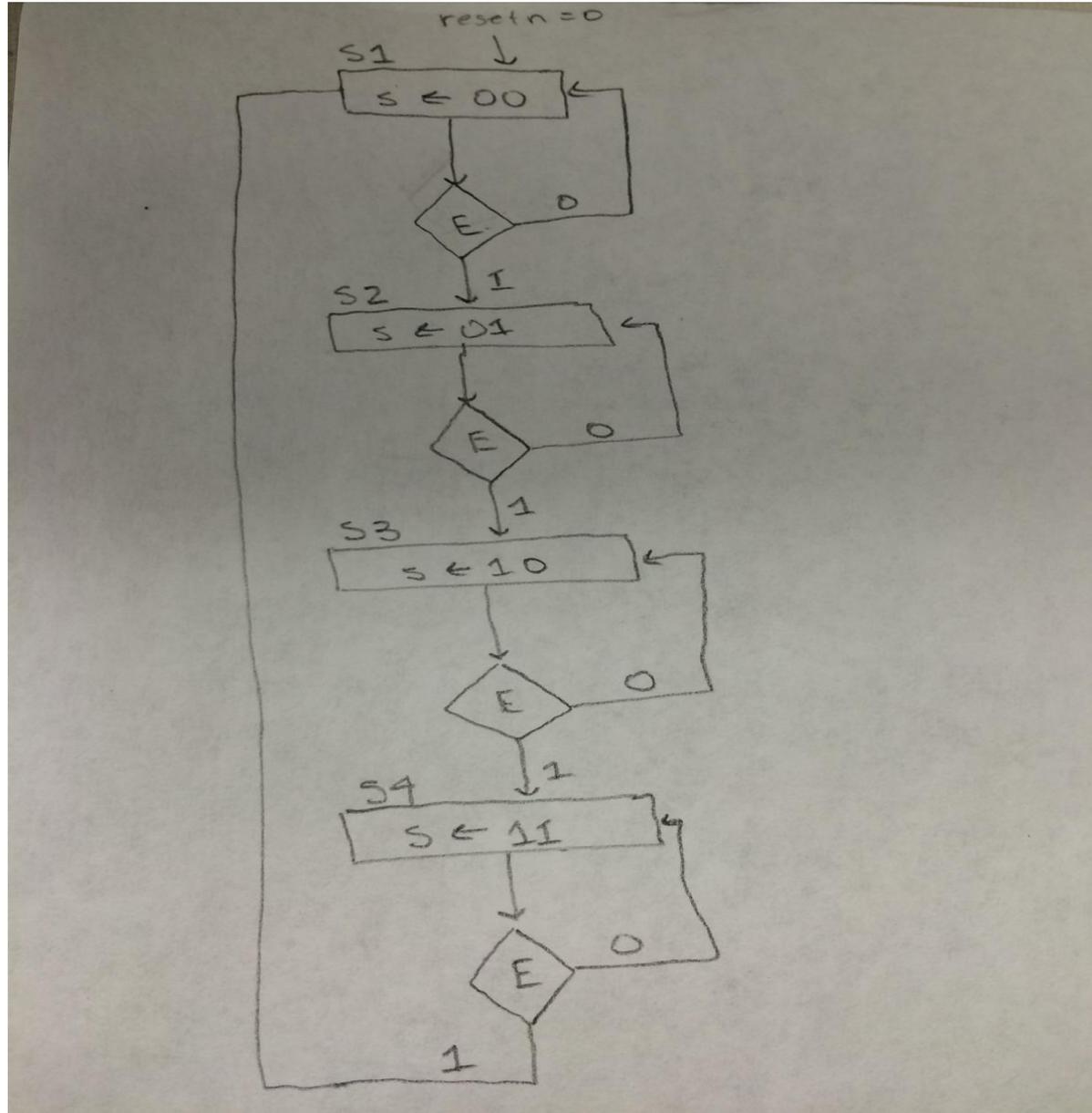
Detecting a '1'

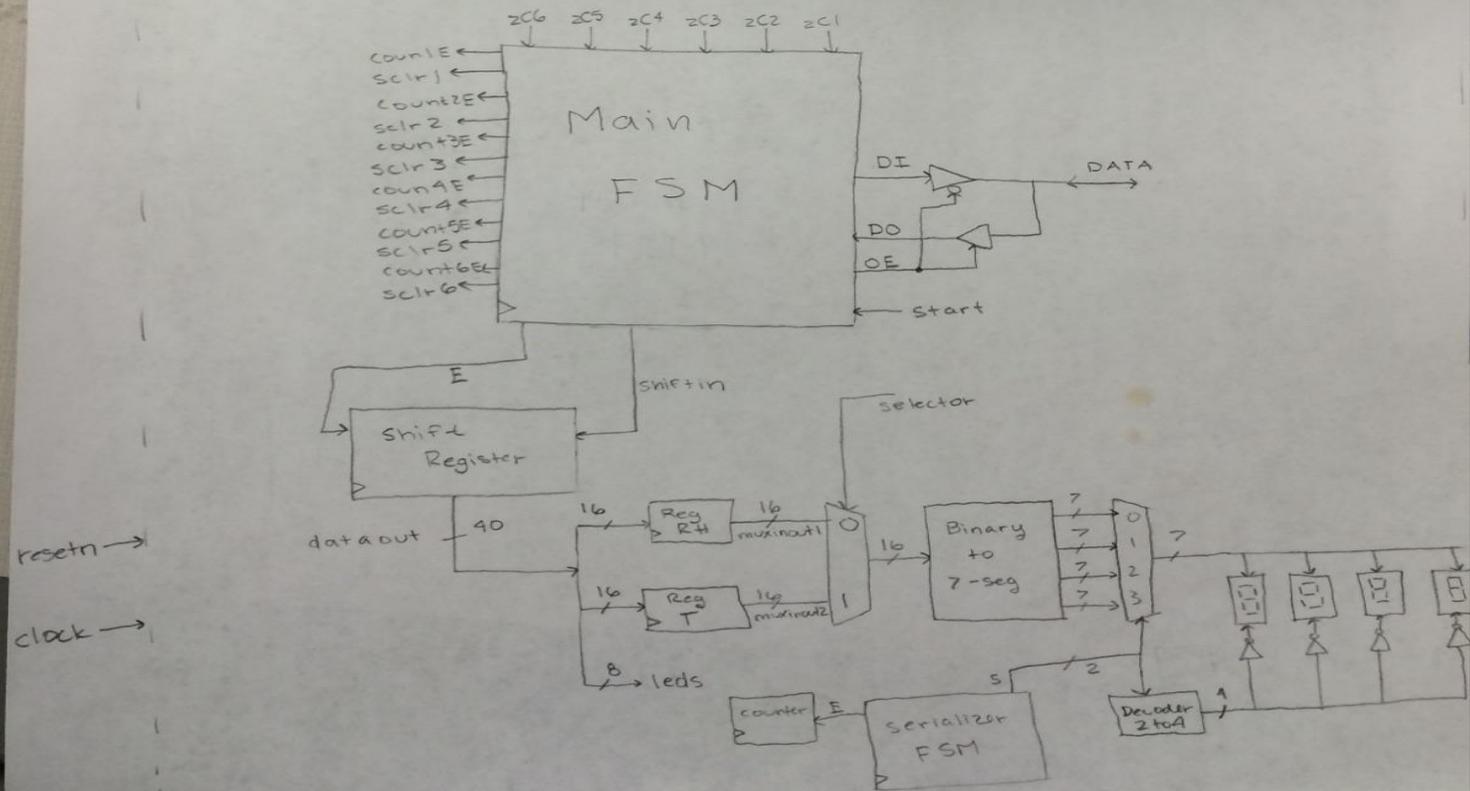
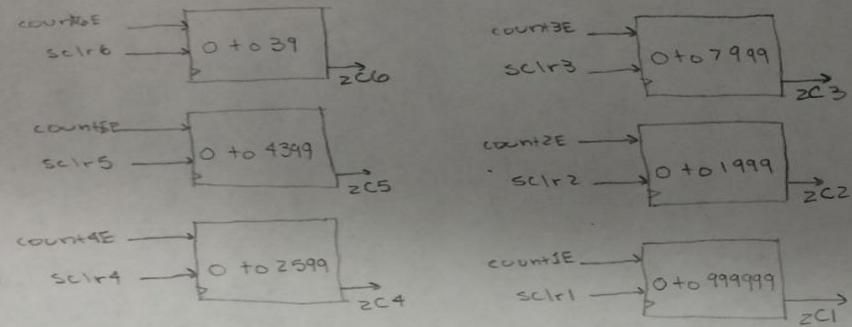




The Main FSM
(ASM Form)

7-Segment Serializer FSM (ASM Form)





Circuit Design