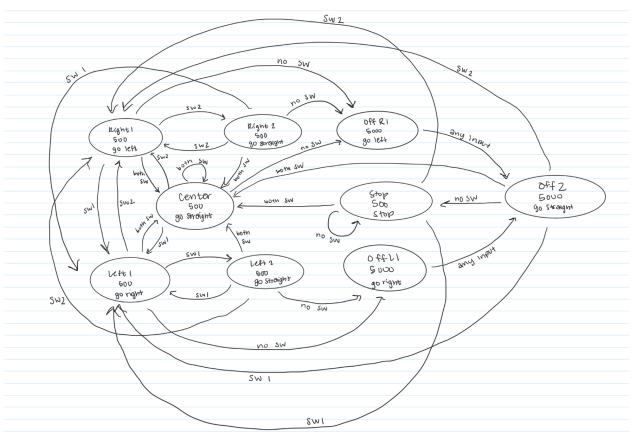
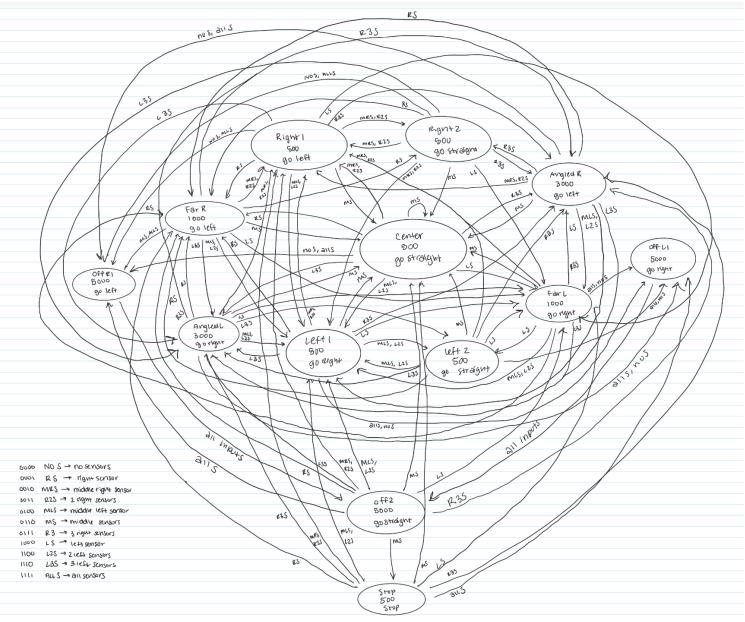
Finite State Machine Diagram from 7.4.2:



Corresponding State Transition Table:

state	Motor	no SW (00)	5W1 (01)	SW2 (10)	both SW (11)
center	go Straignt (1,1)	oteri	vef+1	Right 1	center
Left	go right (1,0)	offLI	Left 2	Rign+1	center
vest 2	go straight (1,1)	off Li	Left 1	Right 1	Center
OFELI	go right (1,0)	Off 2	off 2	off2	off2
off 2	30 studidny (141)	Stop	Left 1	Rightl	centor
Stop	Stop (010)	Stop	Left1	Eighti	center
OffRI	9018ft (011)	0ff2	off2	off2	Off 2
Rightl	go (Cft (0,1)	offRi	LEFFI	12 ign+2	center
Right2	90 (eft (0,1)	045 21	lefti	Right	center

Finite State Machine with Sensors (4-bit input):



At first glance, I know this looks messy. If I had time to redo this I would color code each input line to make it easier to read. I made it as neat as I possibly could but this took hours and I couldn't redo it: (the table on the next page is much easier to make sense of since there are just so many lines here.

Corresponding State Transition Table:

State	Motor	(COCOO) 2 OM	RS(00017)	MRS (0010)]	R25(0611)	MLSCOLDO)	MSCOILOZ	1 e35(6111)	(SC1000)	L25(1100)	L3S(1110)	ALLS CILIT)
center	go straignt (1,1)	offel	FarR	Rigntl	Righti	Left1	center	Avgredie	Farl	lesti	Mygredi	OffRI
Right 1	go left (0,1)	offRI	For R	Right 2	Right 2	Left 1	center	Anglear	FarL	LCHI	Angleal	OFFRI
Rign+2	go Stroigut(1,1)	044 51	Fark	Rightl	Right 1	Left	center	rngied &	Fart	Left1	Angled L	0ffR1
Far R	go left (0,1)	OftBI	Right2	Rigntl	right 1	Lefti	center	Angled 12	Farl	Left1	AngleaL	SEERI
Angled R	go left co,1)	offel	FORR	Right 1	Right1	Left	center	Right 2	FarL	Lefti	Angled	OFFRI
UFFRI	go left (0,1)	0942	off2	0942	off2	0942	off 2	0942	off2	0842	off2	0972
OFF2	go Straignt (1,1)	Stop	Fark	Rightl	kigh+1	Left1	center	Buglede	Farl	Lefyl	anglear	OffRI
OFFLI	go right (1,0)	off2	off2	0992	0942	off2	off2	off2	092	off2	off2	0445
Argidl	go right (1,0)	offli	far R	Kign+1	Rightl	Uft)	center	Angled &	FarL	Left1	Left2	offul
ForL	go right(1,6)	07501	Fair	Rign+1	Right 1	LCFTI	center	Angled R	Left2	refti	Angredi	offLi
Left2	80 straignt (1,1)	OfflI	Far R	reignti	Rightl	Lest1	center	Angicar	Parl	Lest1	Anglede	OffLI
Leftl	go right(1,0)	OffLI	Far R	Rigntl	reign+1	Left 2	center	Angled R	FerL	Left 2	Angledic	OFFLI
Stop	Stop (6,0)	Stop	FOYE	(Right)	Right	left	Center	anguale	FarL	Left1	mgudt	OFFLI