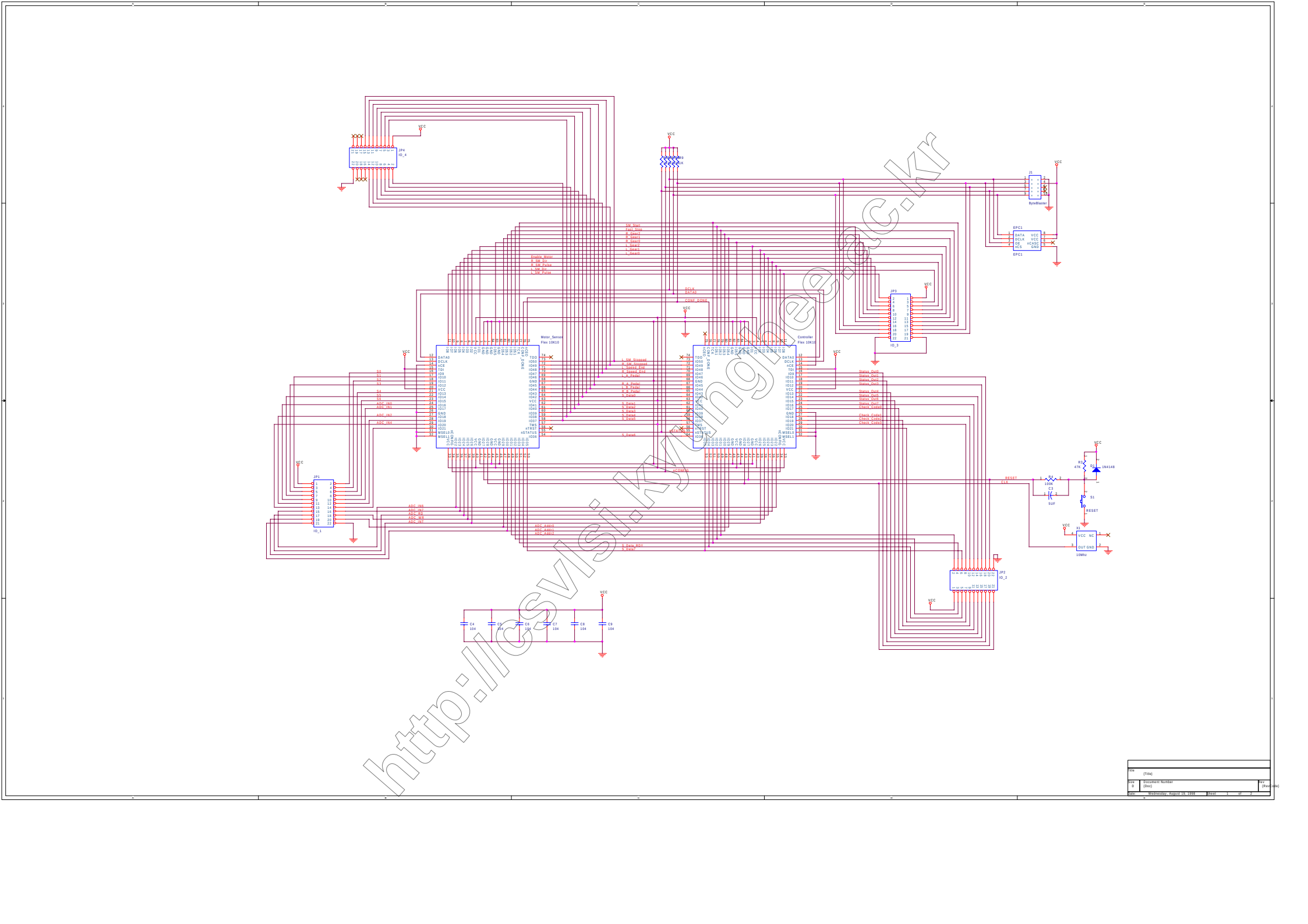
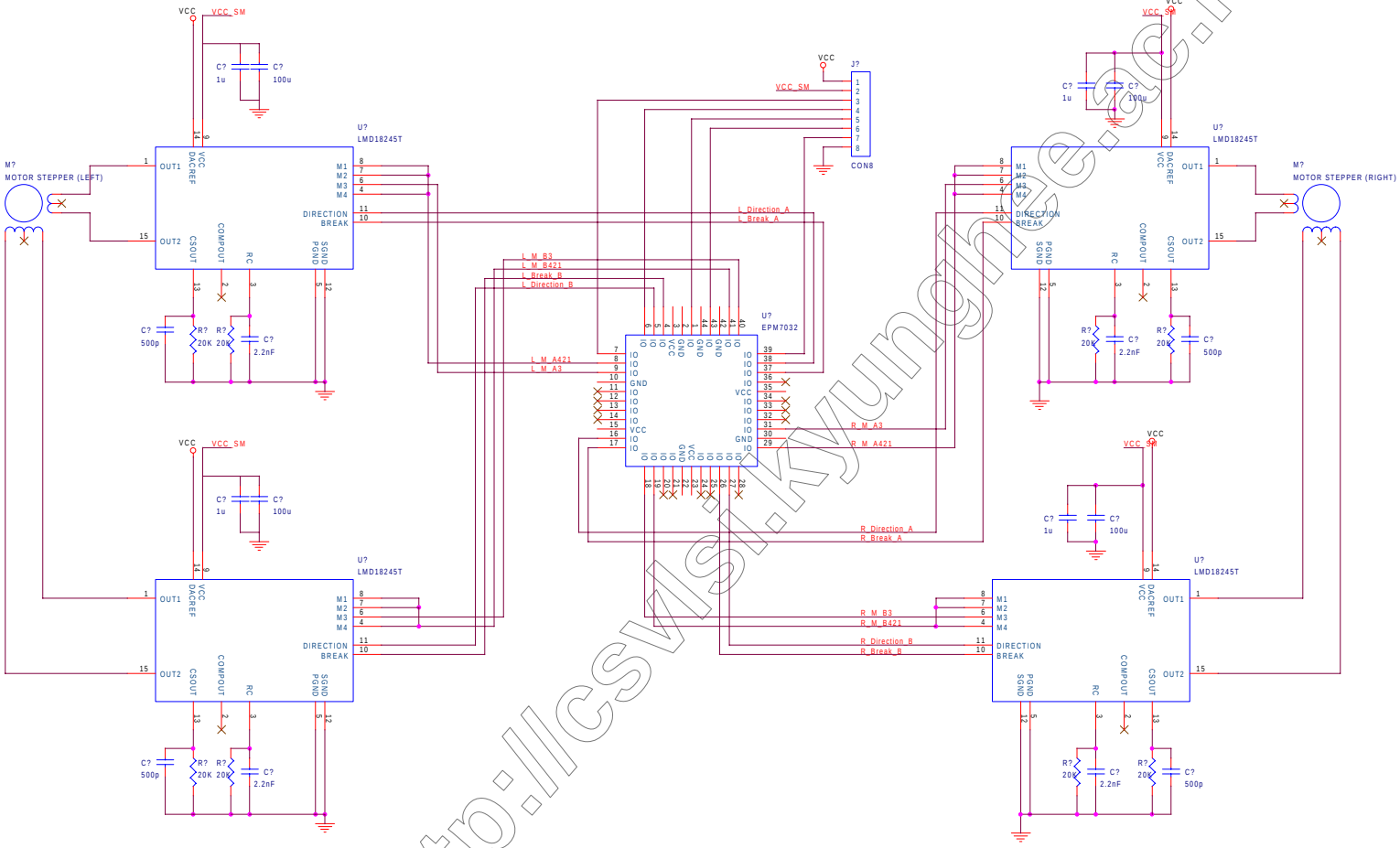
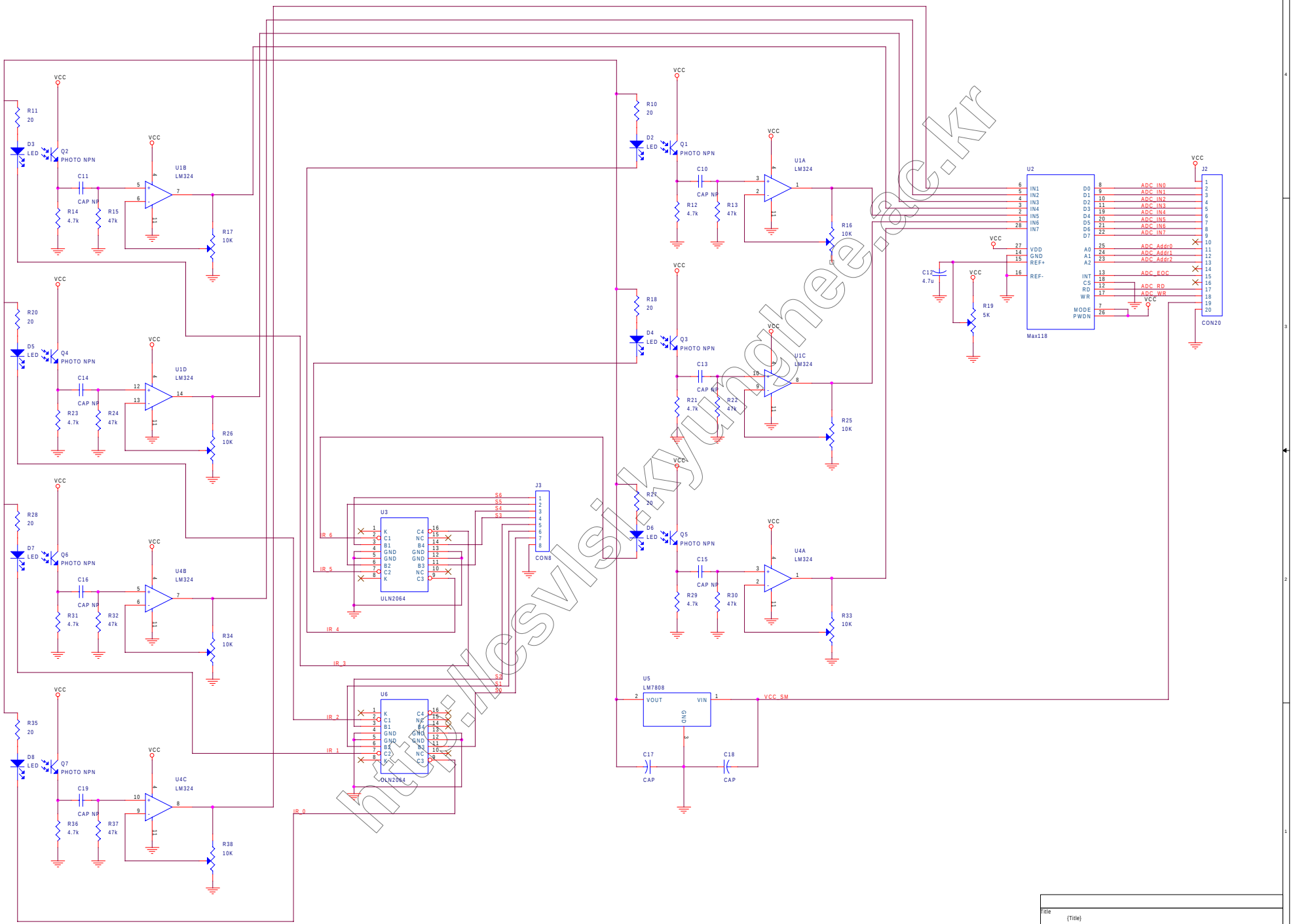

FLEX 10K10
MAXIM
http://www.csvlsi.kyunghee.ac.kr
goodkook@csvlsi.kyunghee.ac.kr



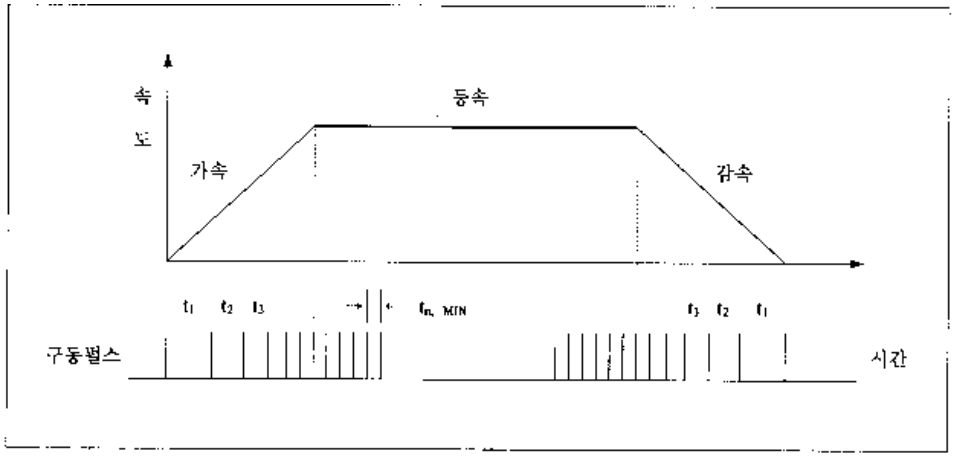
Title	(Title)	
Size: D	Document Number: (Doc)	Rev: (RevCode)
Date: Wednesday, August 19, 1998	Sheet 1 of 2	



Title	{Title}	
Size C	Document Number {Doc}	Rev {RevCode}
Date: Wednesday, August 19, 1998	Sheet 1 of 1	



Title	{Title}	
Size C	Document Number {Doc}	Rev {RevCode}
Date: Tuesday, August 18, 1998	Sheet 2 of 2	



$$t_2 = \frac{t_1}{\sqrt{2}}$$

$$t_3 = \frac{t_1}{\sqrt{3}}$$

$$\vdots$$

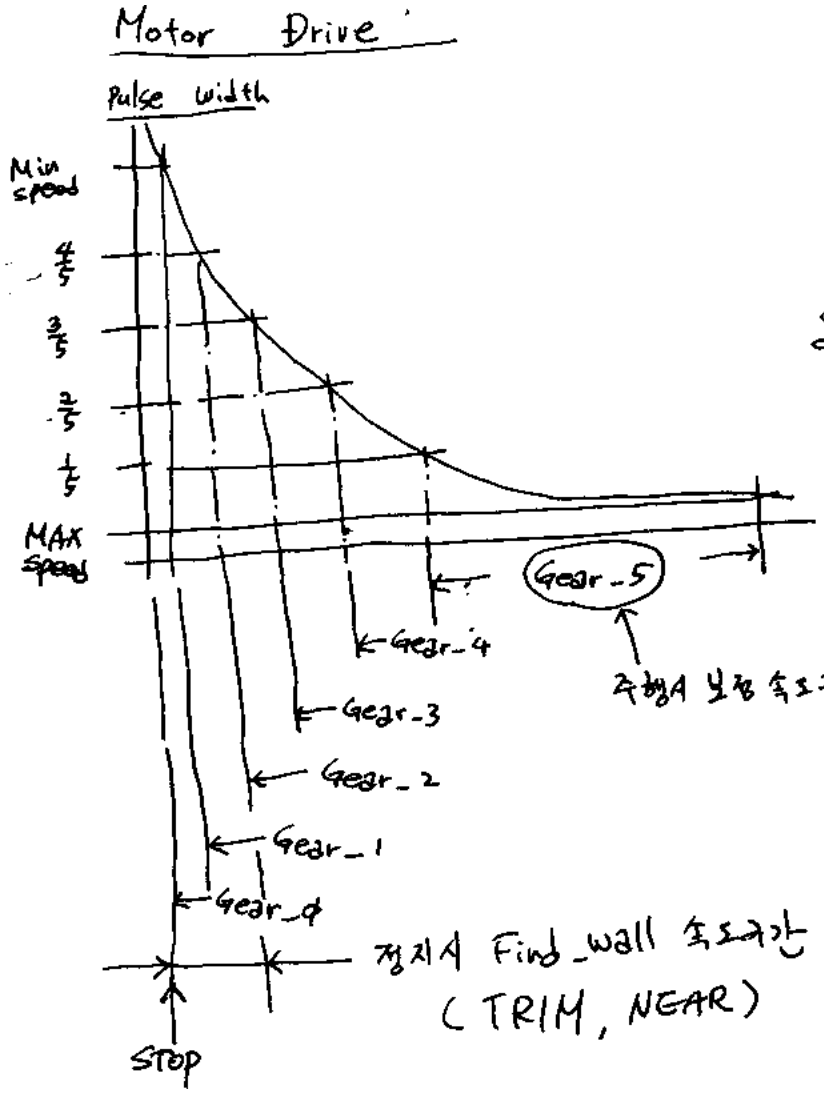
$$t_n = \frac{t_1}{\sqrt{n}}$$

따라서 n번째의 펄스 간격은 첫 번째 간격 t_1의 $1/\sqrt{n}$배가 된다는 것만 기억해도 좋겠다. 가속도를 표현하고자 한다면 첫 번째 펄스간격에 의해 결정이 되는데 (결과만 알아두자)

$$a = \frac{\triangle}{2t_1^{\,2}} \qquad (\triangle : \text{한 펄스당 움직이는 거리})$$

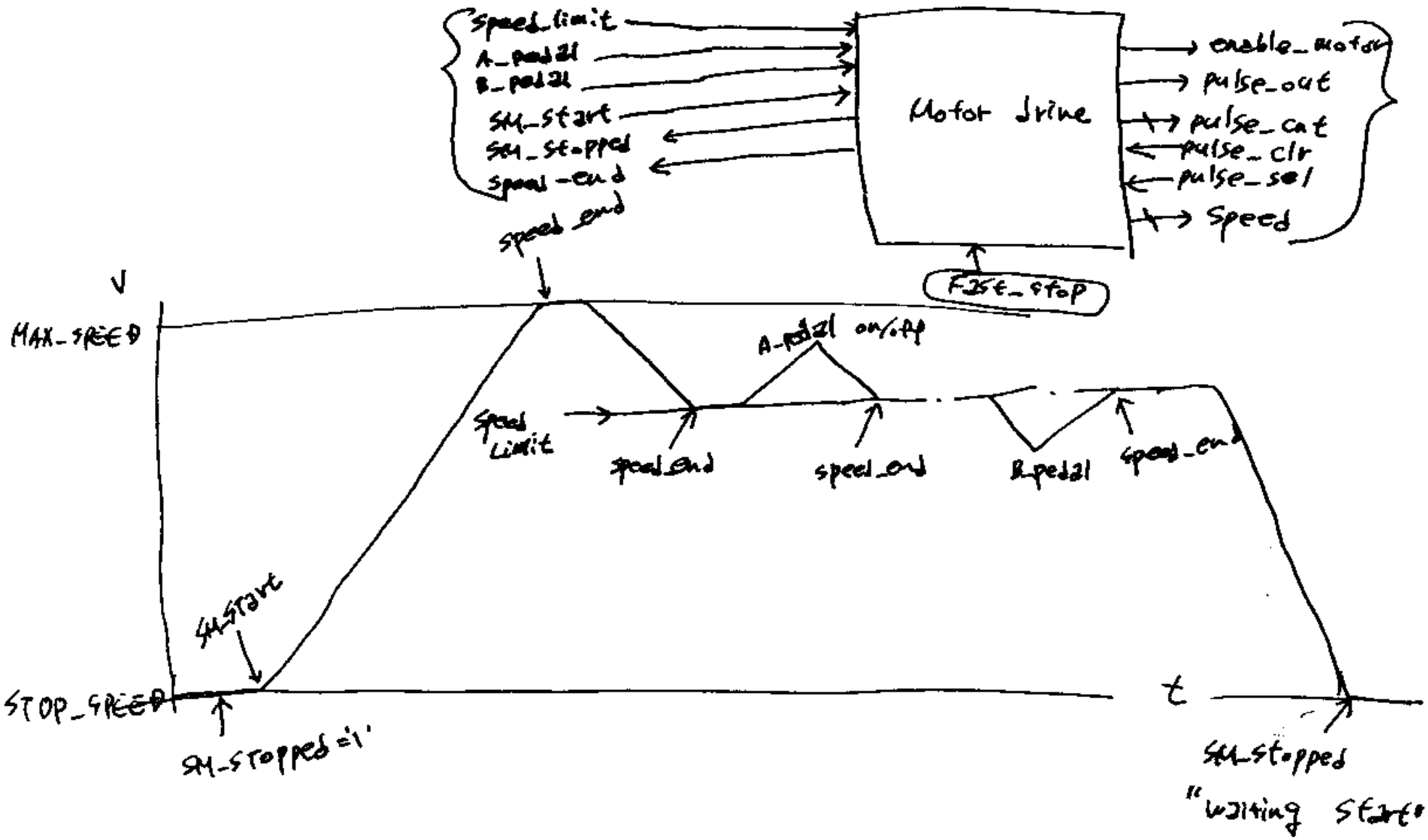
로 나타낼수 있다. 첫 번째 펄스 간격이 클수록 그 제곱비로 가속도가 작아진다고 생각하면 된다.

Note on “Accelerated Start & Stop”

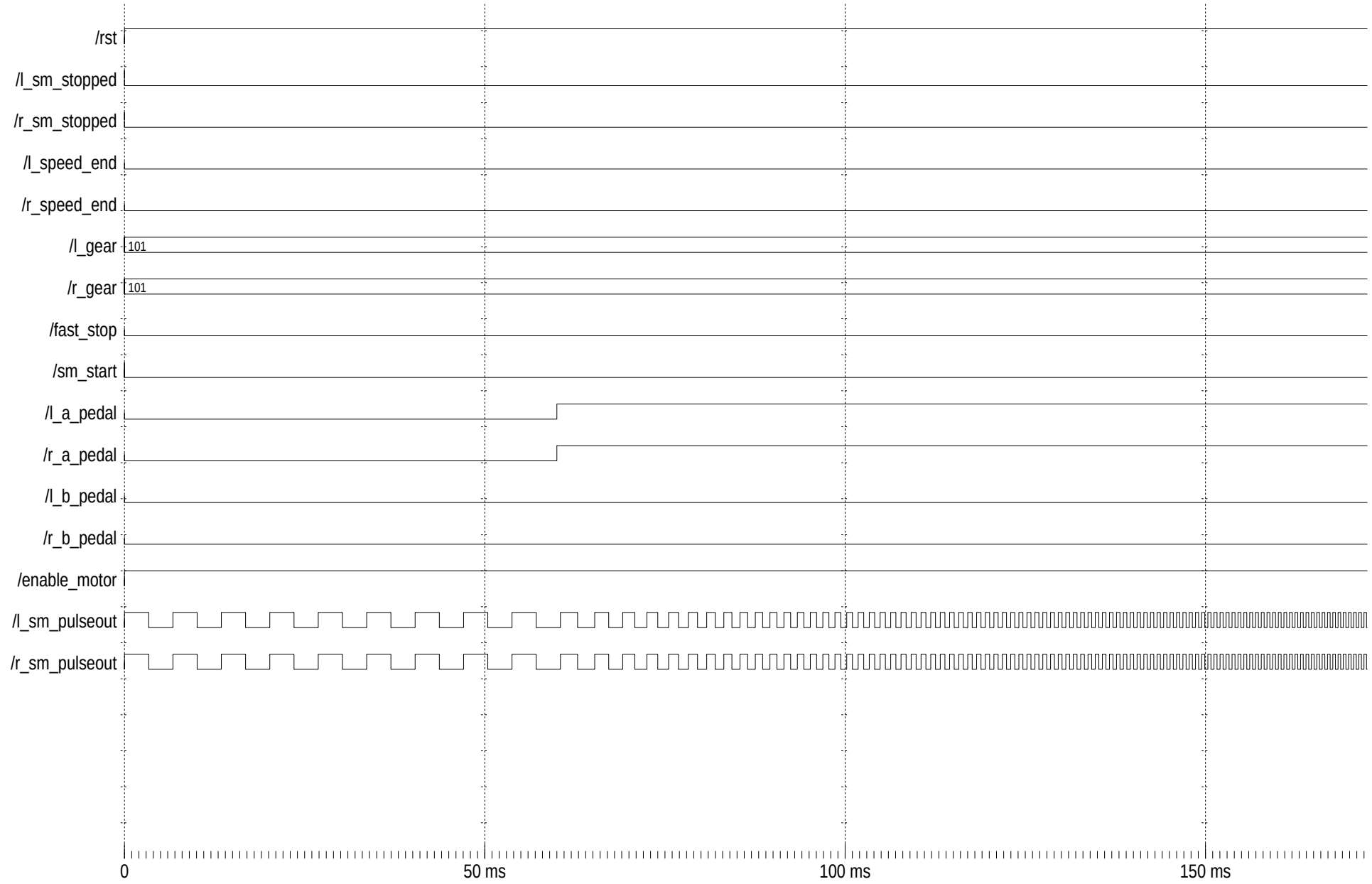


1. Gear 에의하여 속도구간 지정됨
   A_Pedal, B_Pedal 에의하여 구간내 가감속
2. A_Pedal 에 비하여 B_Pedal 이 우선 순위 있음.
3. Gear_0 에서 계속 B_Pedal 이면 정지.
4. 정지후 START 는 "SM_Start" 신호에 의하여 주행 가능.

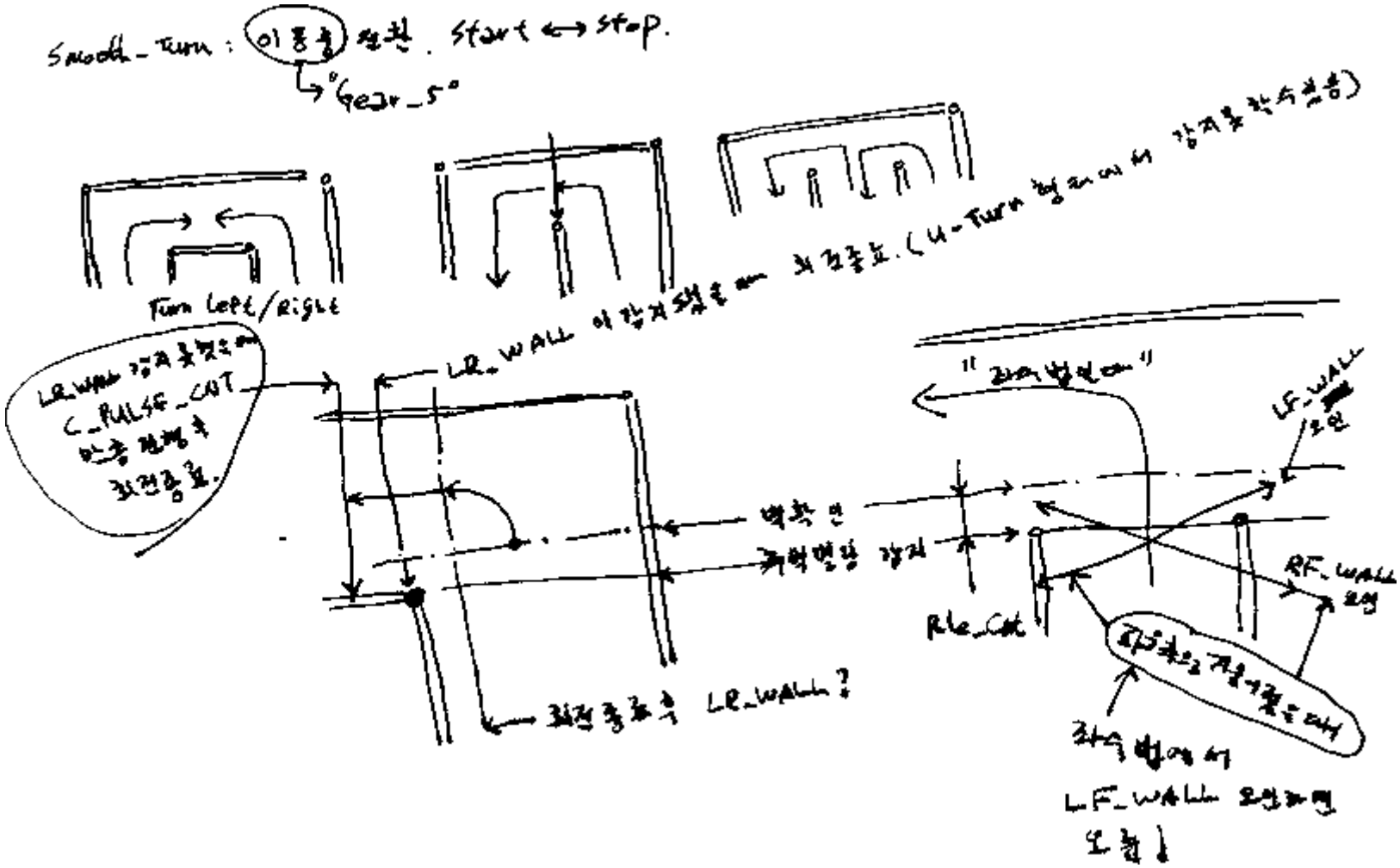
Note on "Motor Drive" ***(goodkook@csvlsi.kyunghee.ac.kr)***



Note on “Motor Drive” ***(goodkook@csvlsi.kyunghee.ac.kr)***

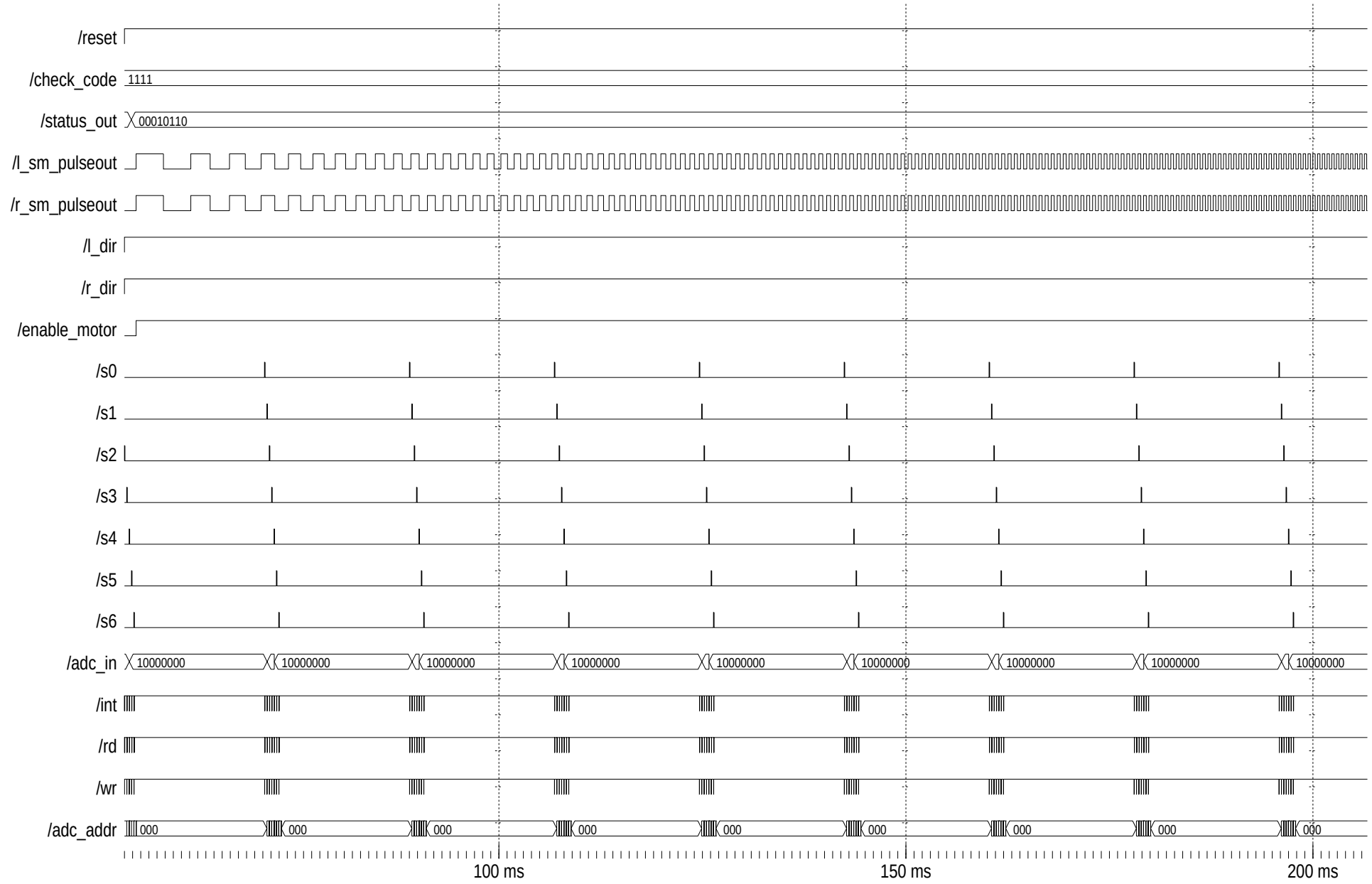


Motor Drive VHDL Simulation-Accelerated Start (goodkook@csvlsi.kyunghee.ac.kr)

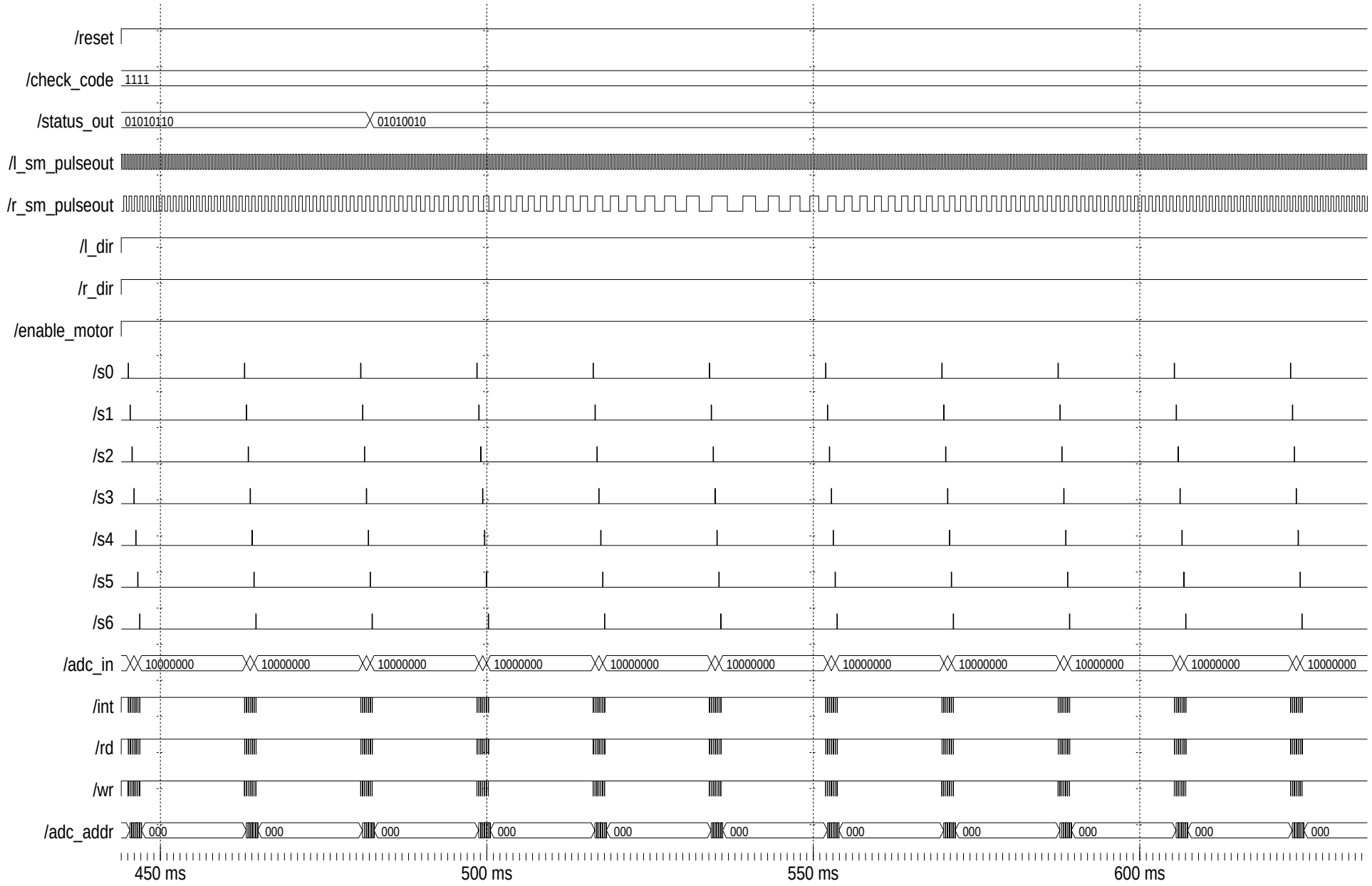


Note on “Smooth-Turn”

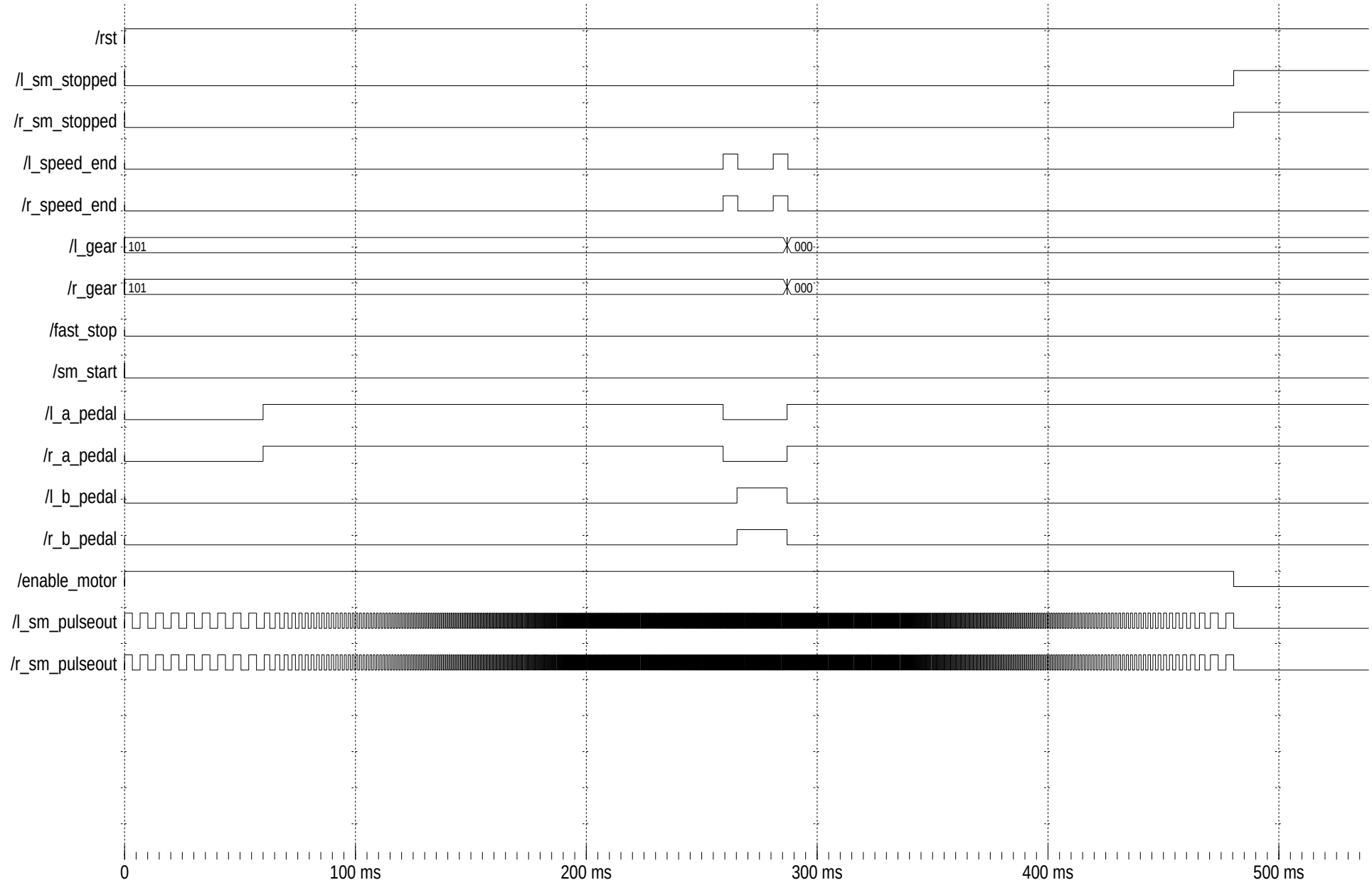
(goodkook@csvlsi.kyunghee.ac.kr)



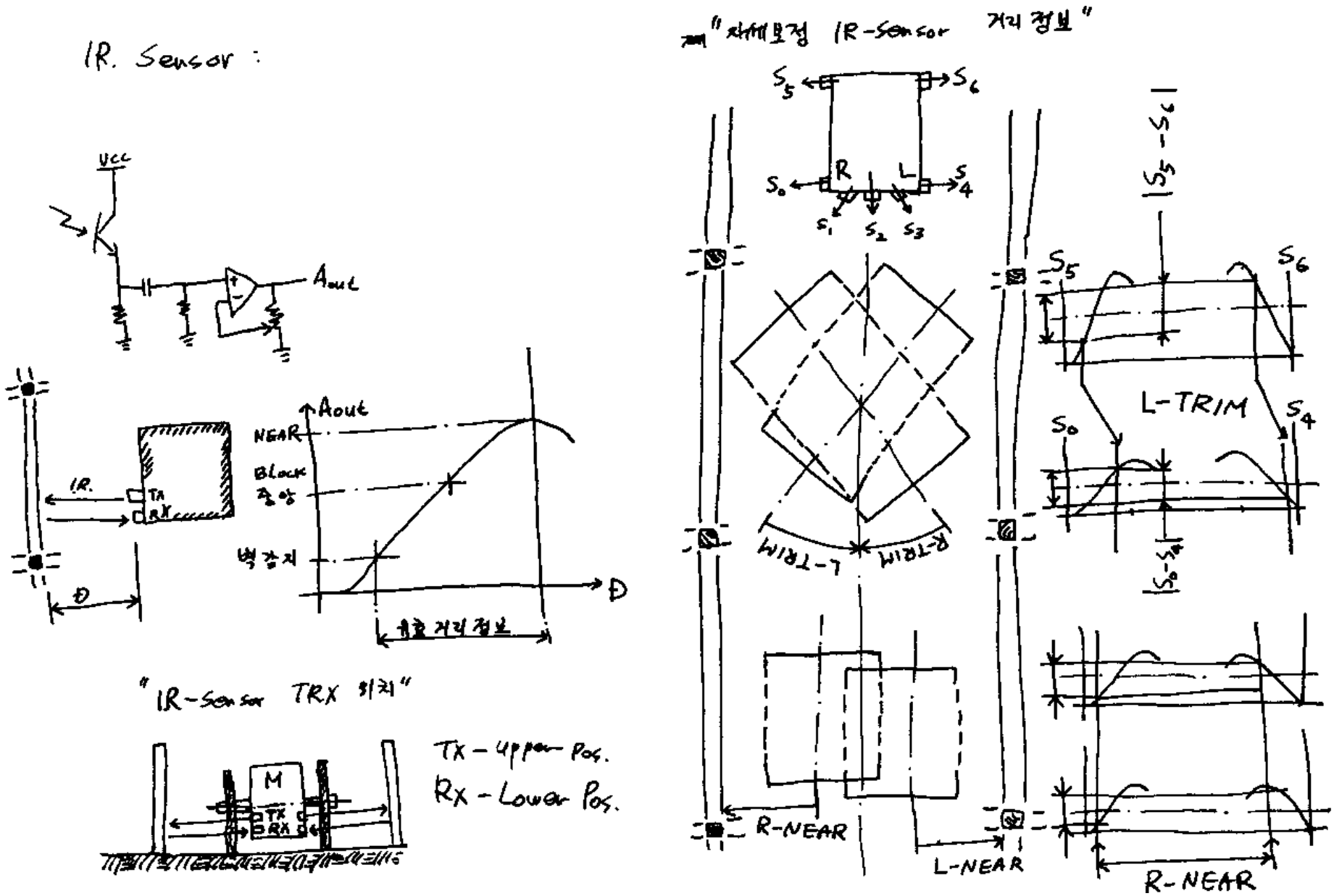
MicroMouse Board-Level Simulation : Smoothed START (goodkook@csvlsi.kyunghee.ac.kr)



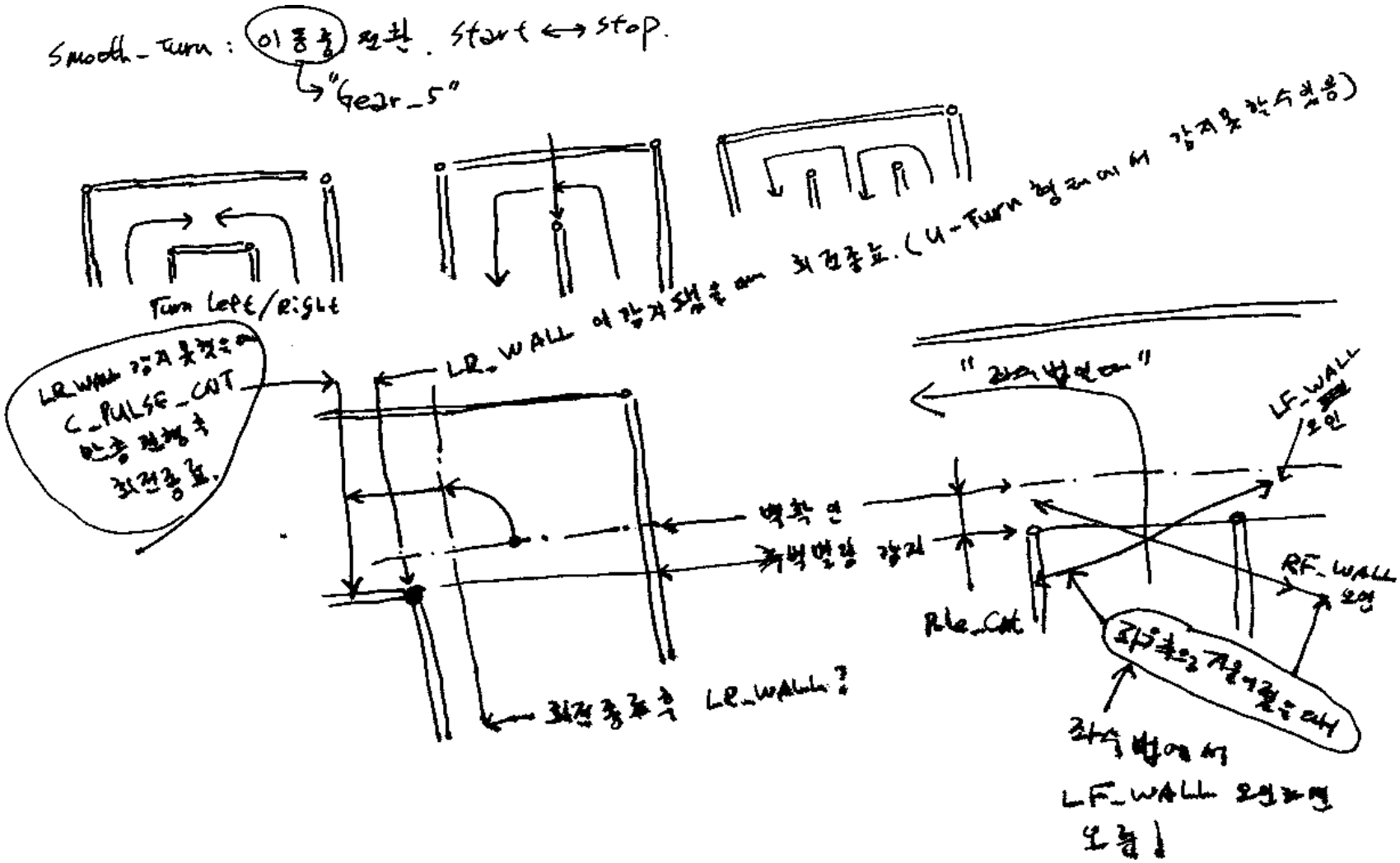
MicroMouse Board-Level Simulation : Smooth-Turn RIGHT (goodkook@csvlsi.kyunghee.ac.kr)



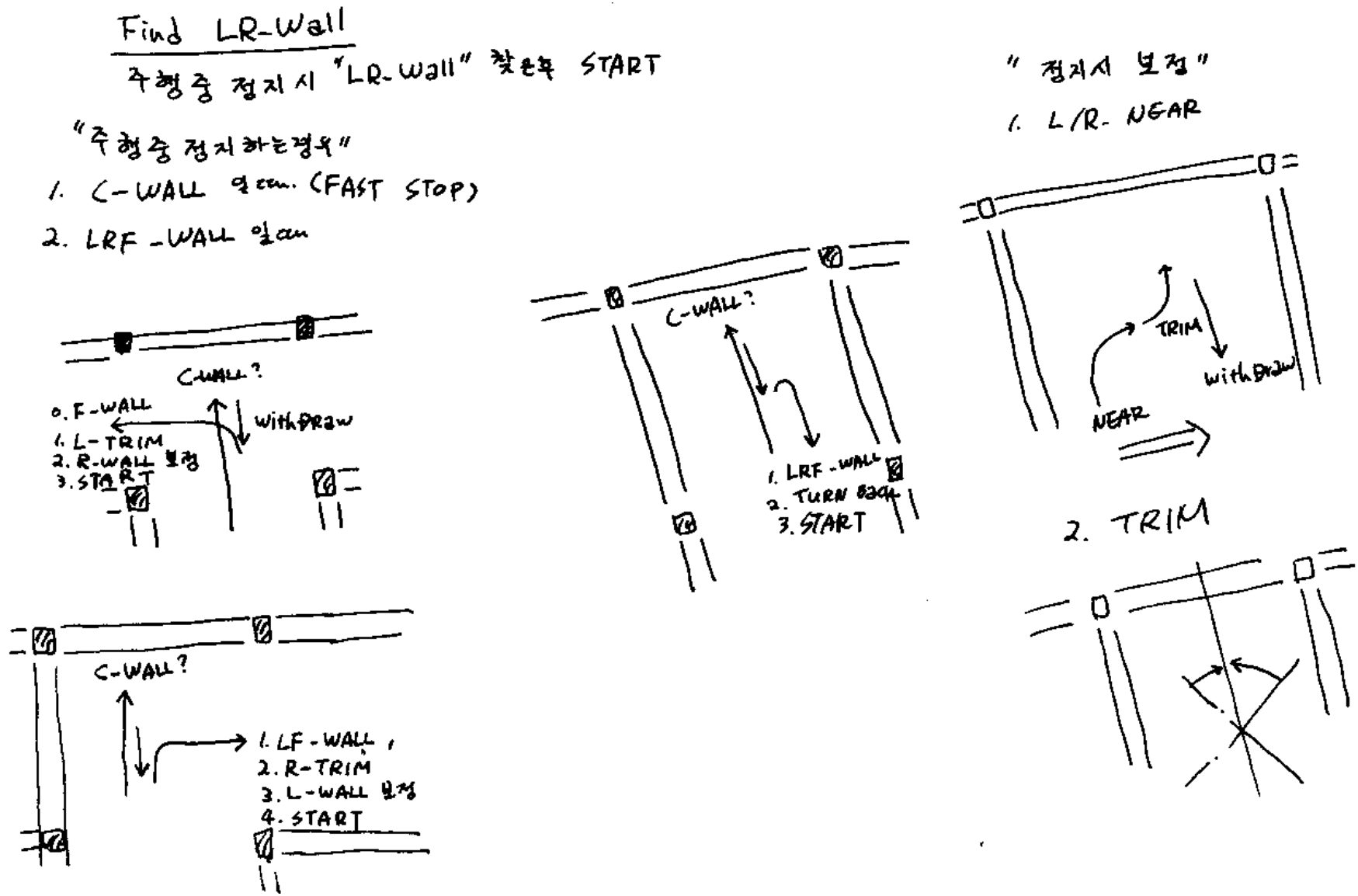
Motor Drive (Accelerated Start & Stop) VHDL Simulation (goodkook@csvlsi.kyunghee.ac.kr)



Note on "IR Sensor" ***(goodkook@csvlsi.kyunghee.ac.kr)***



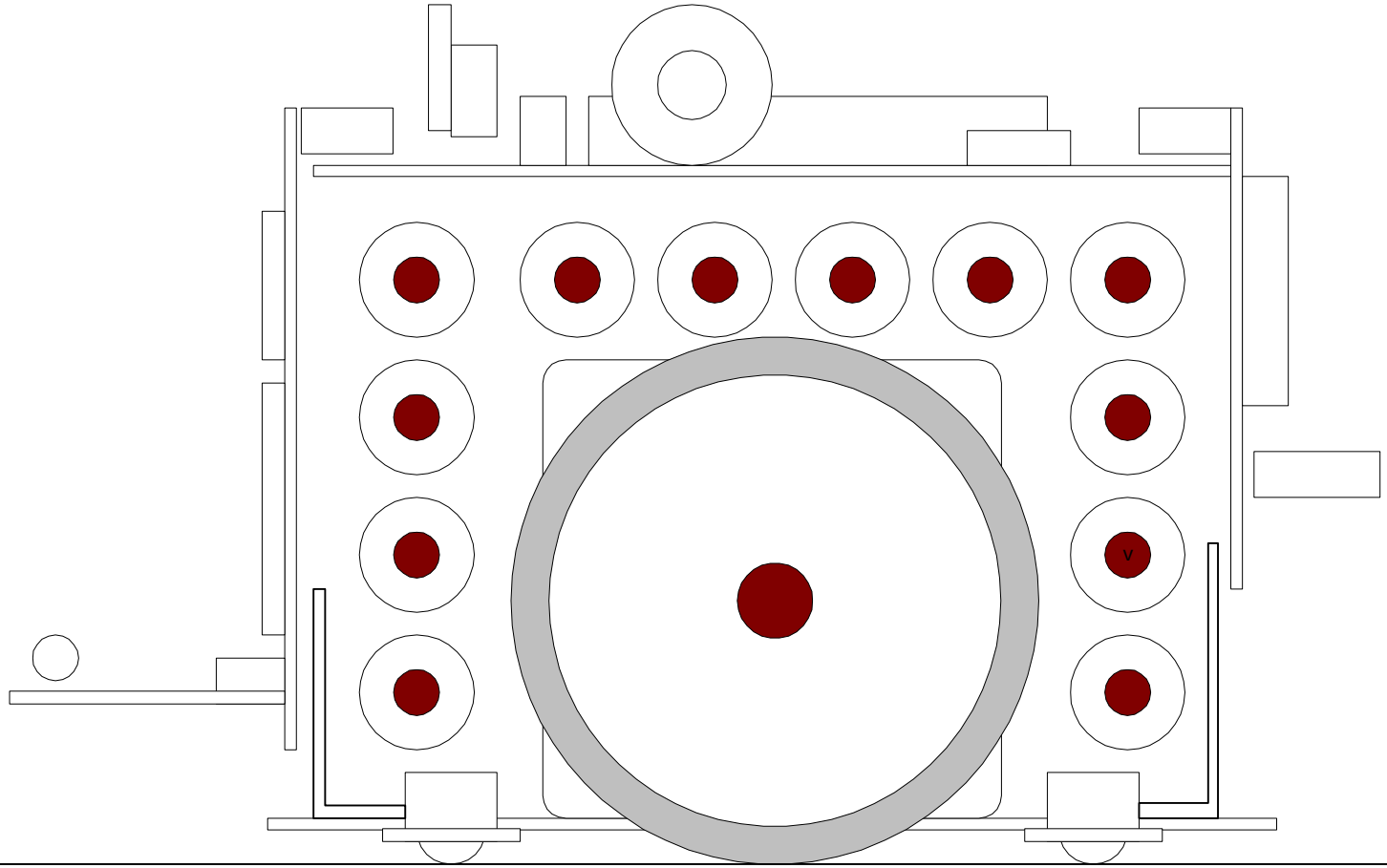
Note on “Smoothed-Turn” *(goodkook@csvlsi.kyunghee.ac.kr)*



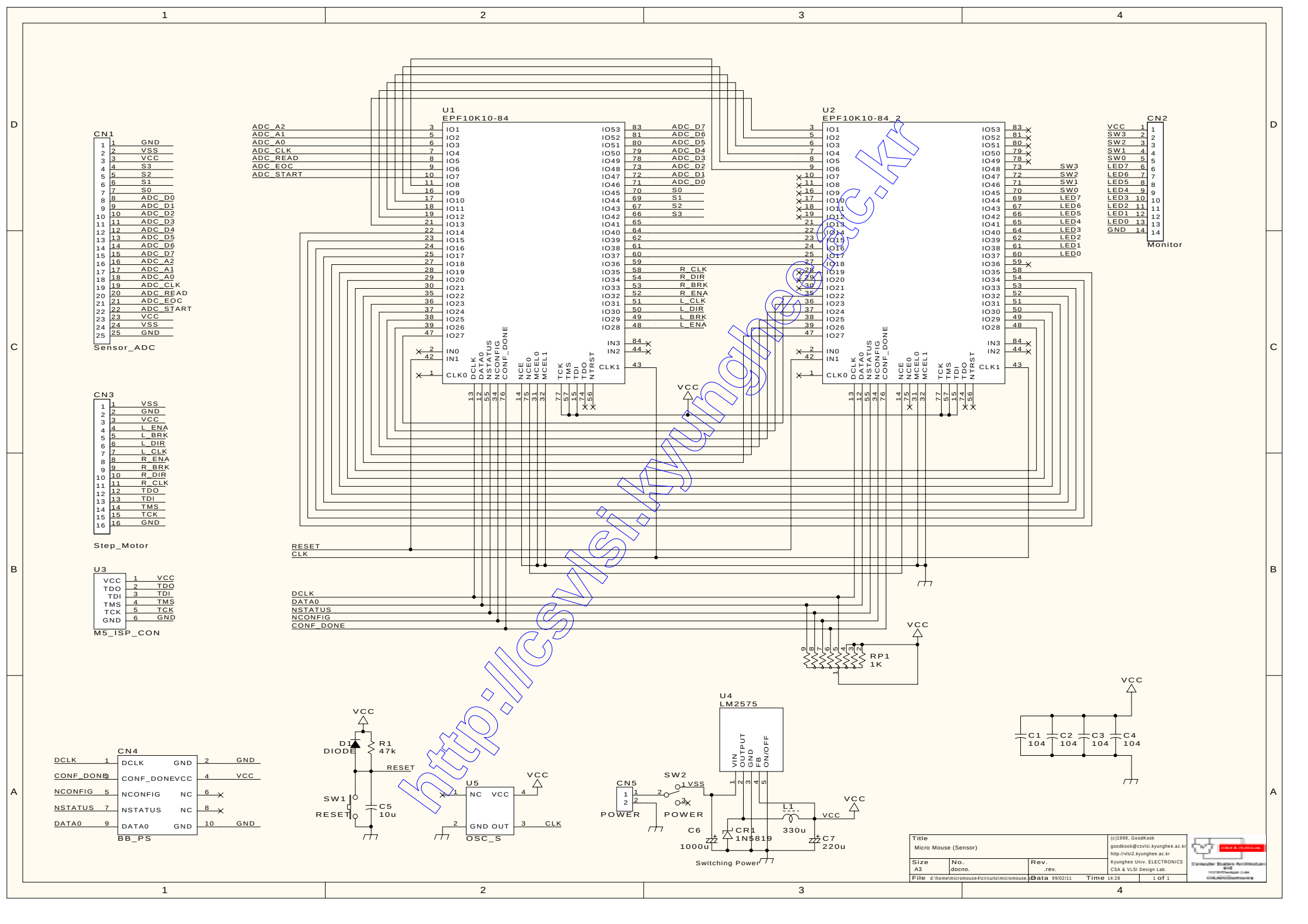
Note on "Find LR-Wall when stopped" ***(goodkook@csvlsi.kyunghee.ac.kr)***

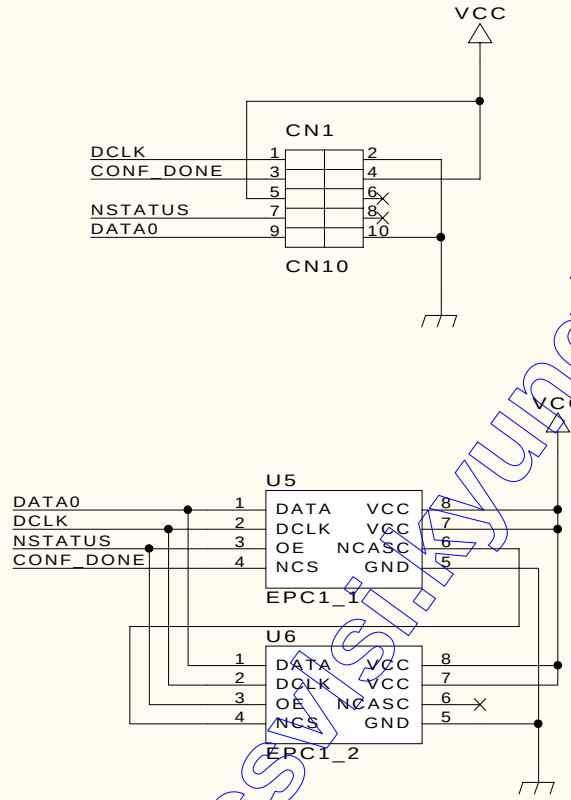
Micro Mouse-VHDL/FPGA

(c)1999, GoodKook
goodkook@csvlsi.kyunghee.ac.kr
URL: http://csvlsi.kyunghee.ac.kr
http://vlsi2.kyunghee.ac.kr

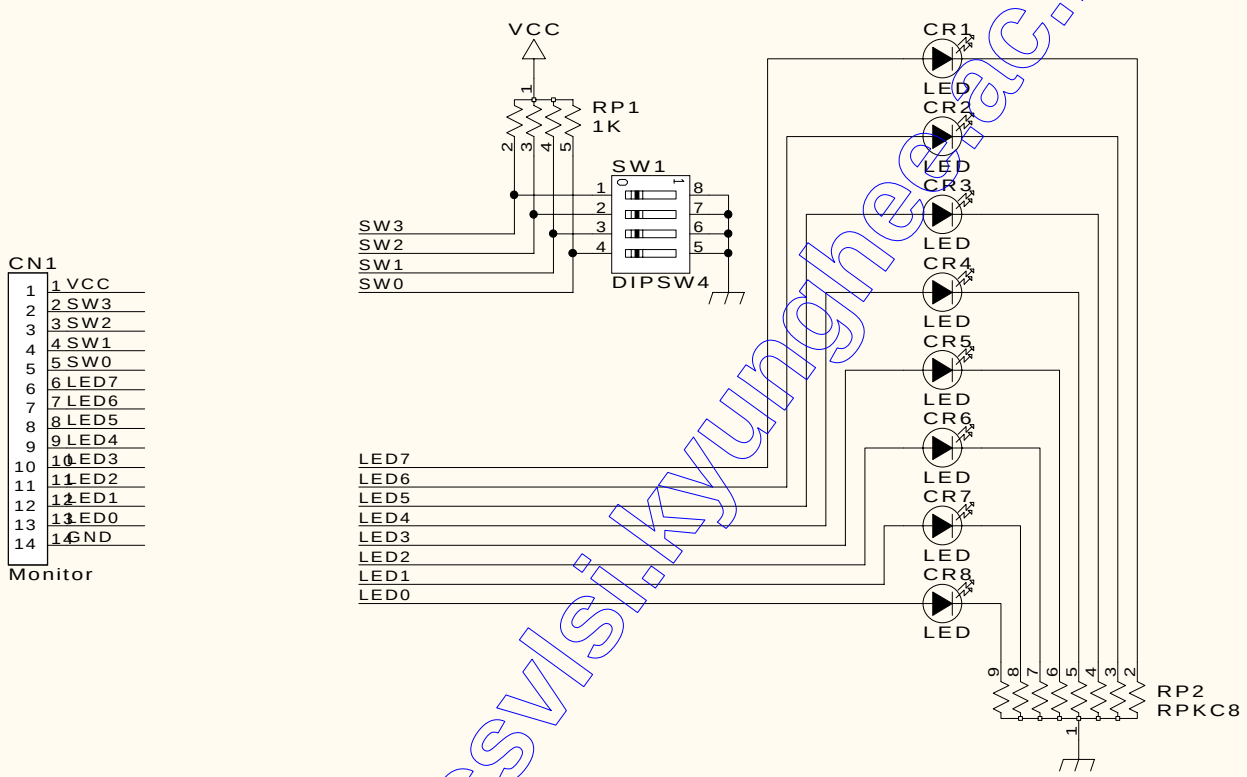


Reseller : EasyTech
Tel: +82-02-6966

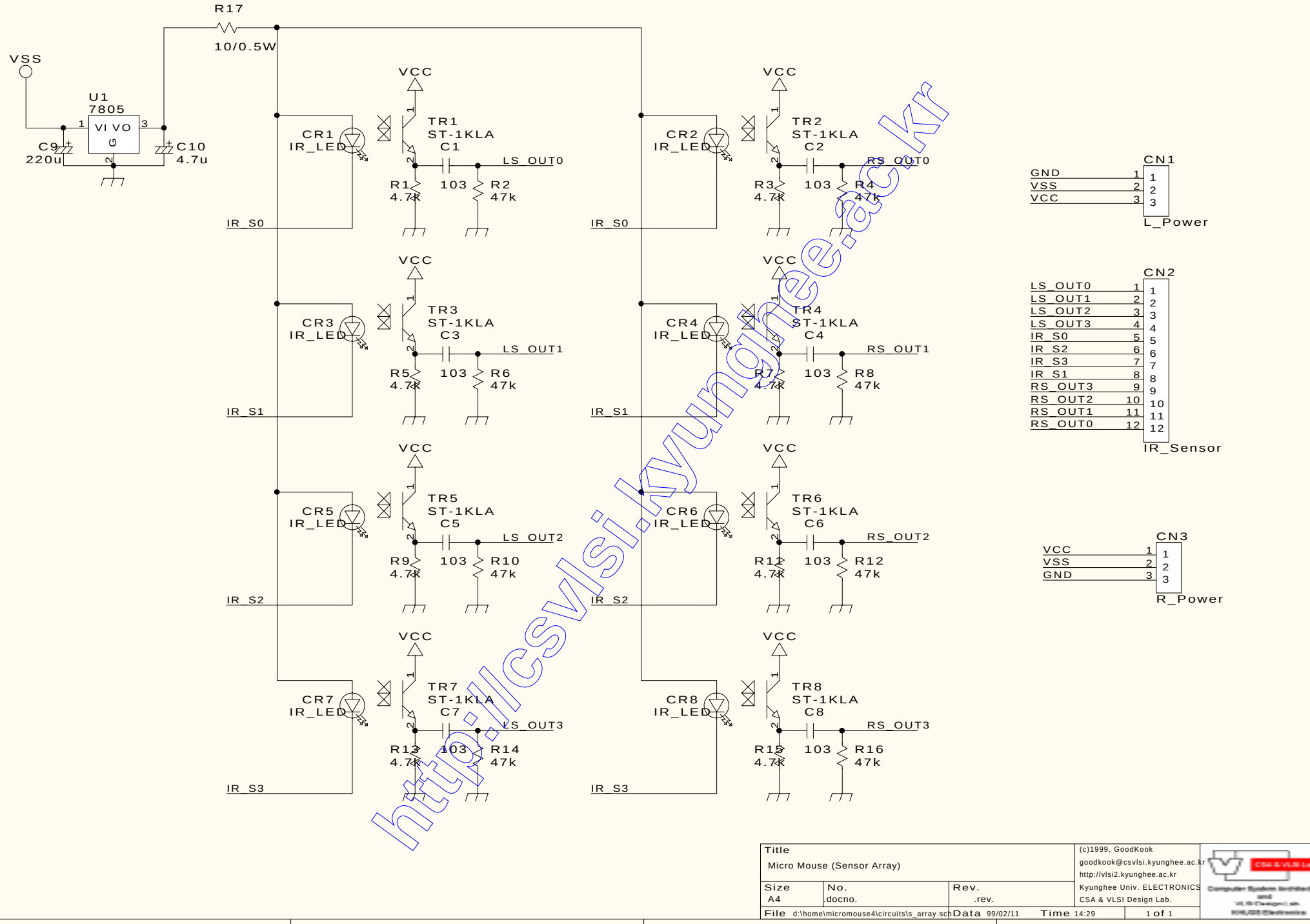




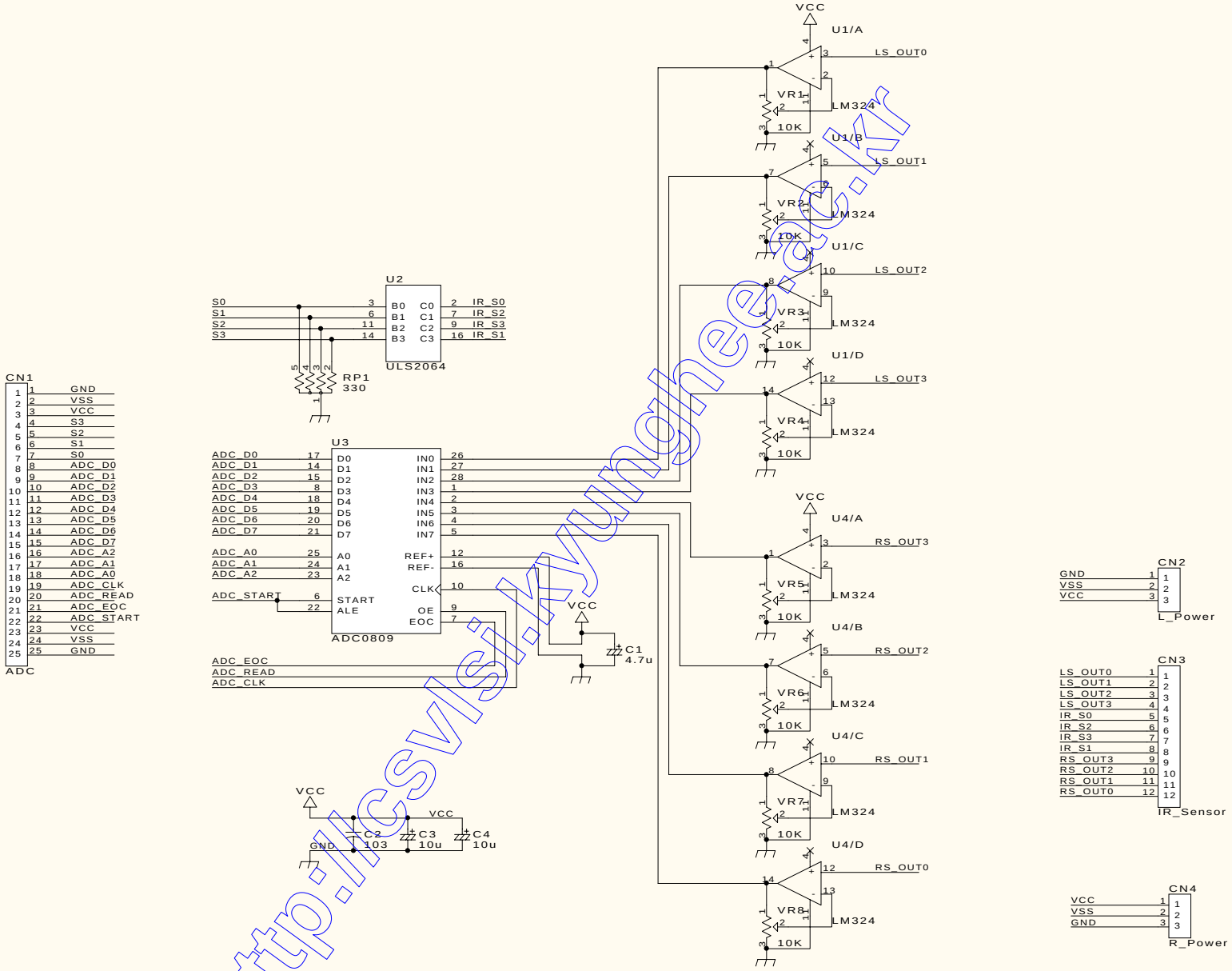
Title: Micro Mouse (Serial ROM)			(c)1999, GoodKook goodkook@csvlsi.kyunghee.ac.kr http://vlsi2.kyunghee.ac.kr
Size: A4	No.: .docno.	Rev.: .rev.	Kyunghee Univ. ELECTRONICS CSA & VLSI Design Lab.
File: d:\home\micromouse4\circuits\pgm_rom.sch	Data: 99/02/11	Time: 14:27	1 of 1



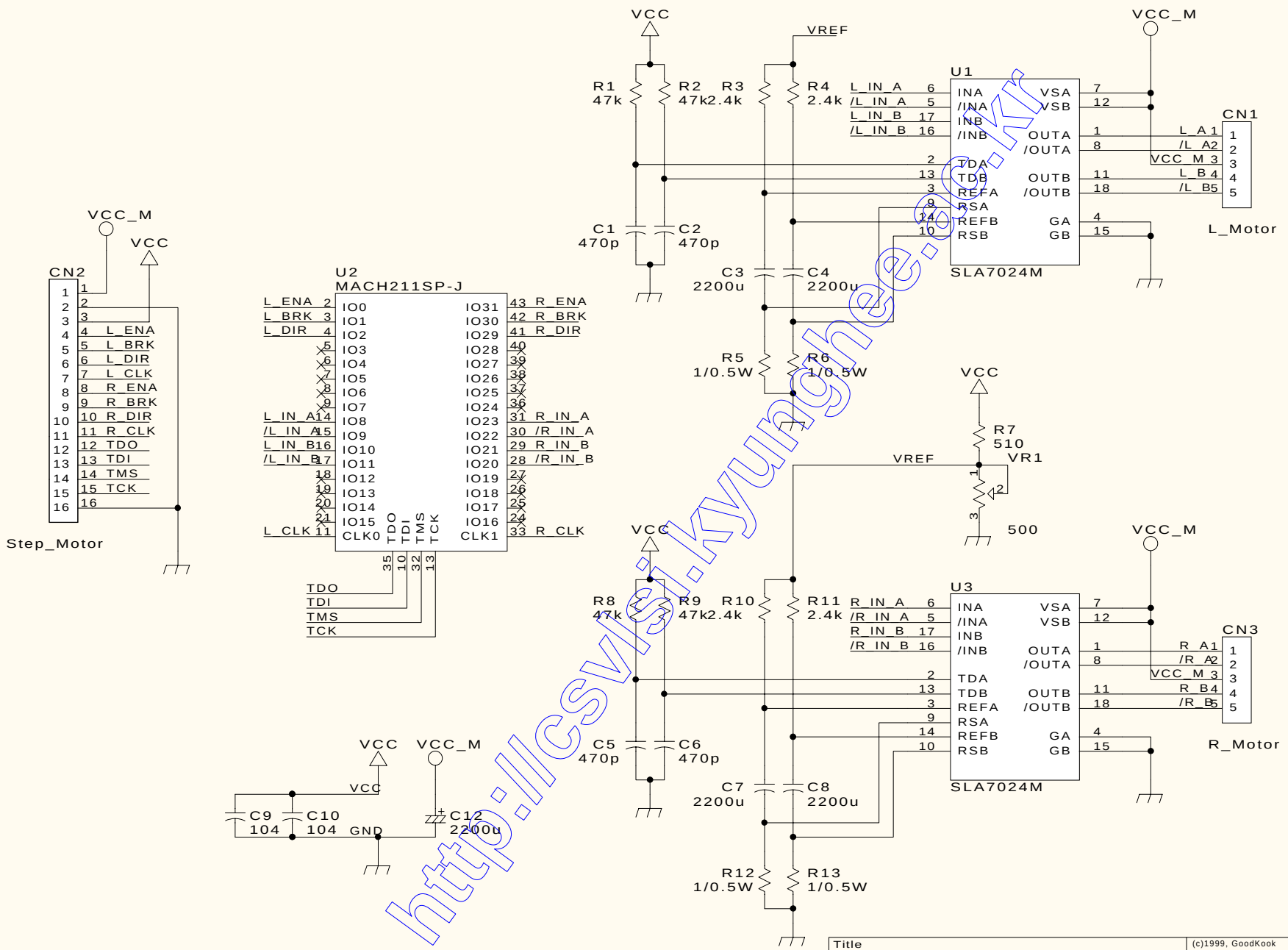
Title: Micro Mouse (Debug Monitor)			(c)1999, GoodKook goodkook@csvlsi.kyunghee.ac.kr http://vlsi2.kyunghee.ac.kr Kyunghee Univ. ELECTRONICS CSA & VLSI Design Lab.
Size: A4	No.: .docno.	Rev.: .rev.	
File: d:\home\micromouse4\circuits\acc_led.sch	Data: 99/02/11	Time: 14:26	1 of 1

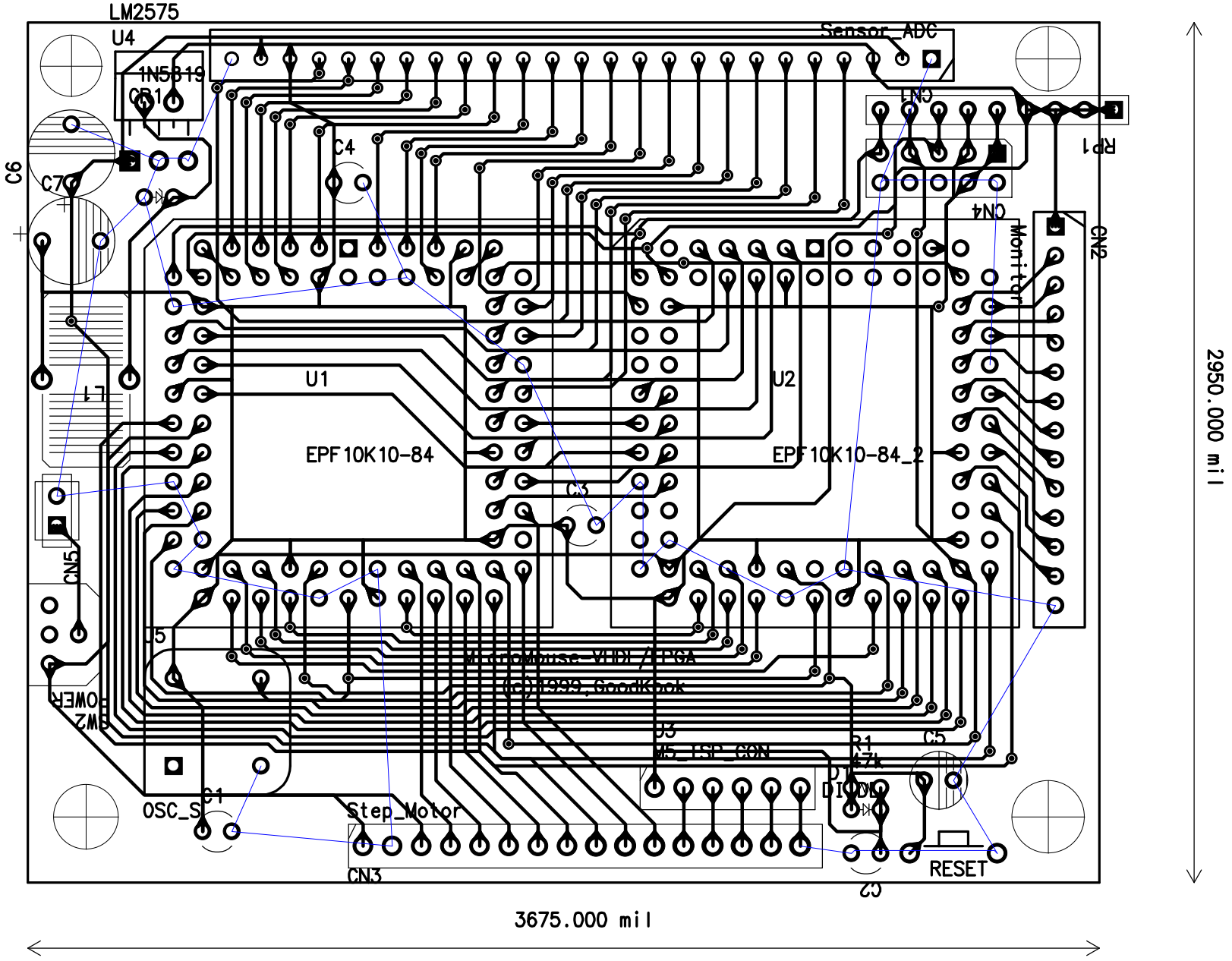


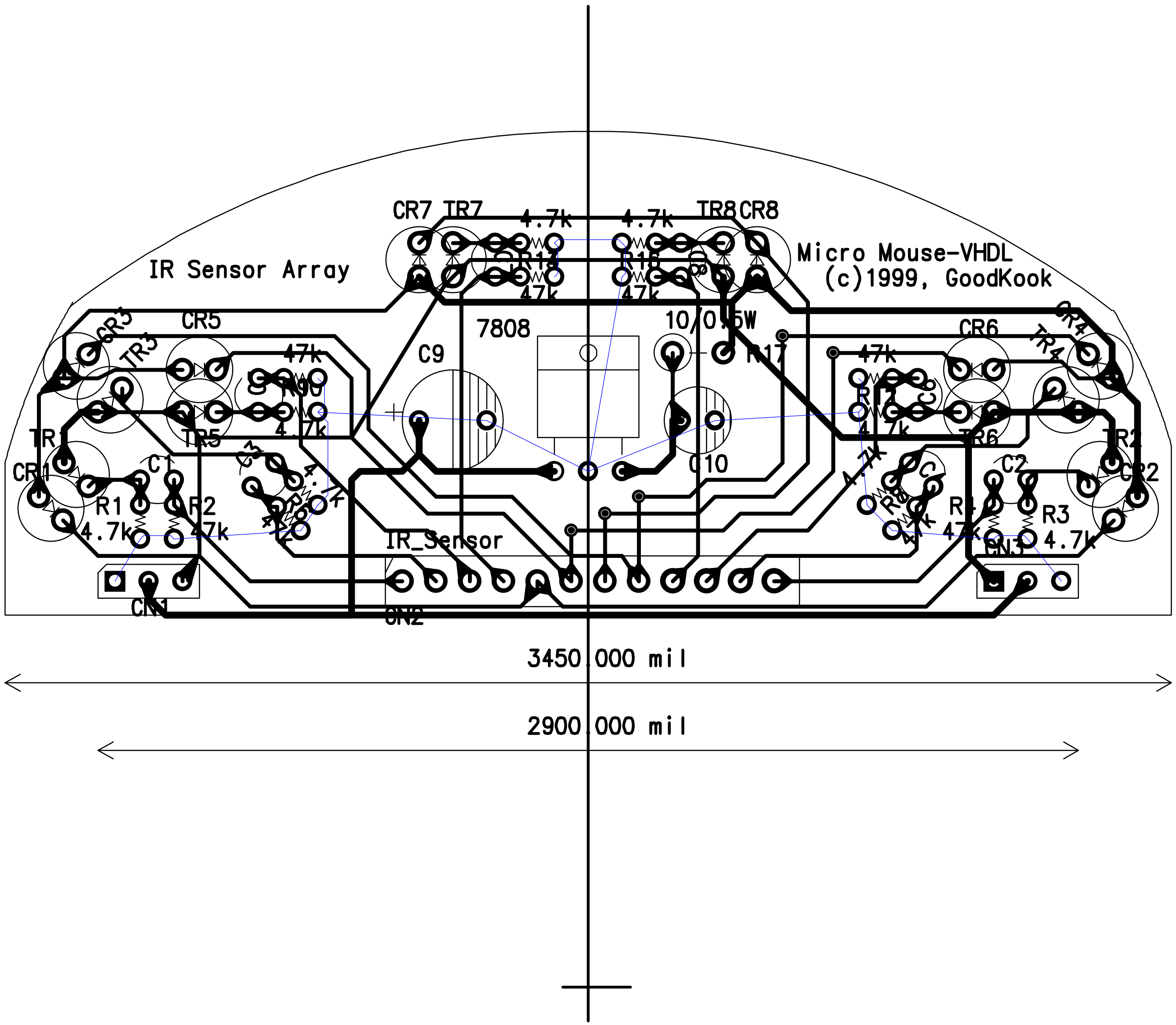
Title: Micro Mouse (Sensor Array)			(c)1999, GoodKook goodkook@csvlsi.kyunghee.ac.kr http://vlsi2.kyunghee.ac.kr Kyunghee Univ. ELECTRONICS CSA & VLSI Design Lab.
Size: A4	No.: .docno.	Rev.: .rev.	
File: d:\home\micromouse4\circuits\s_array.sch	Data: 99/02/11	Time: 14:29	1 of 1

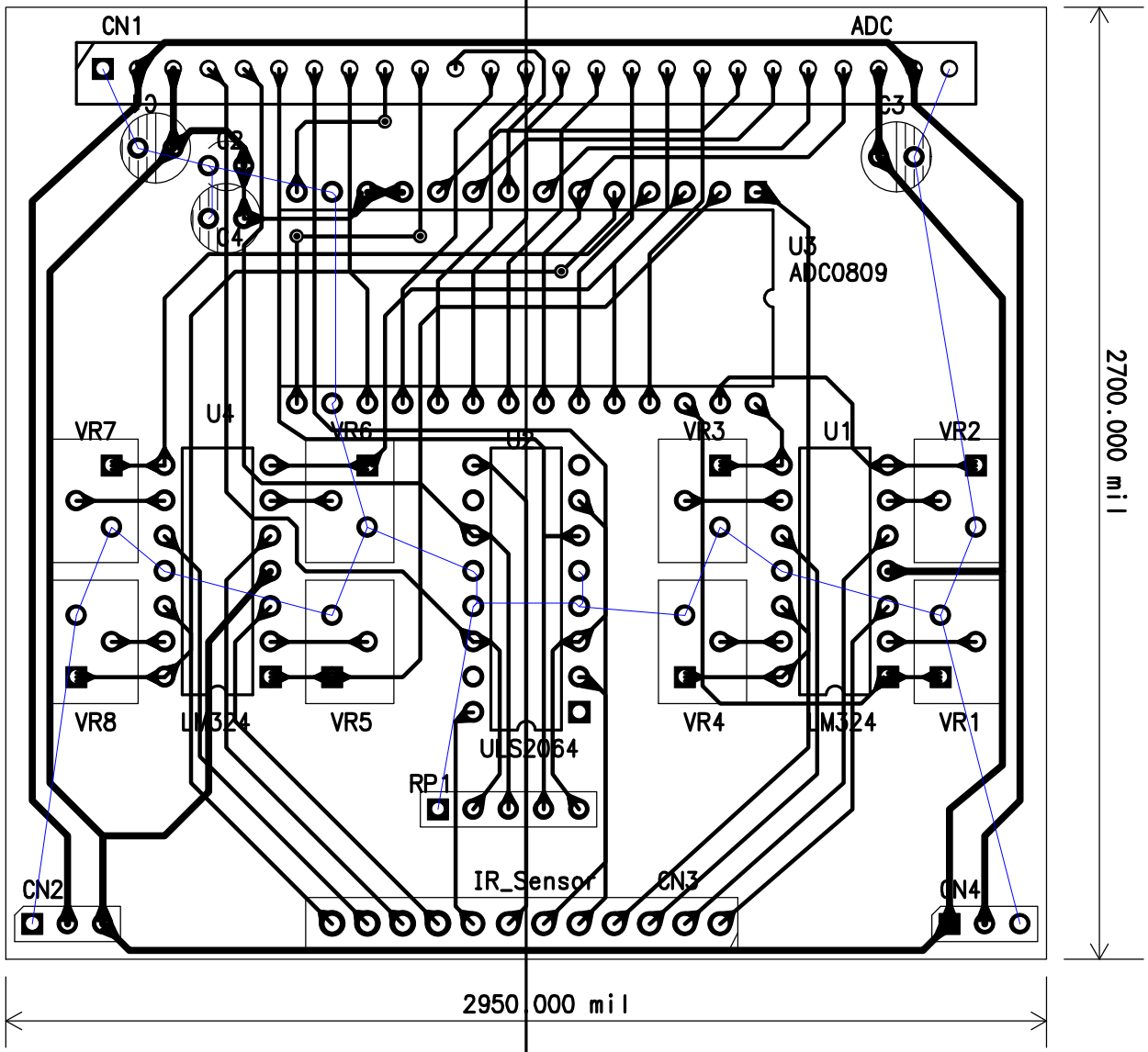


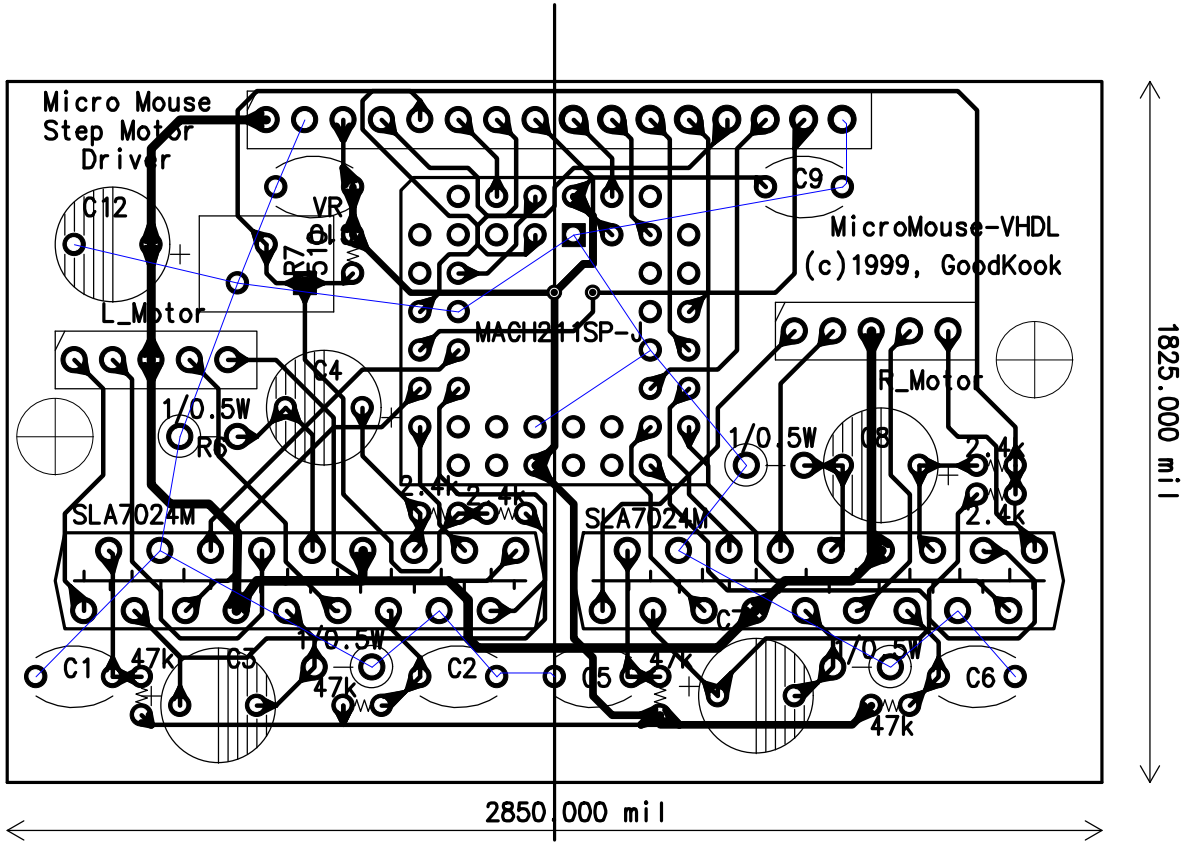
Title: Micro Mouse (Sensor ADC)			(c)1999. GoodKook goodkook@csvlsi.kyunghee.ac.kr http://vlsi2.kyunghee.ac.kr Kyunghee Univ. ELECTRONICS CSA & VLSI Design Lab.
Size: A3	No.: docno.	Rev.: .rev.	
File: d:\home\micromouse4\circuits\sensor_adc.sch	Data: 99/02/11	Time: 14:28	1 of 1




LM2575
U4
1N5819
CR1
Sensor_ADC
LN0
RP1
C4
C6
C7
CN4
Monitor
CN2
U1
U2
EPF10K10-84
EPF10K10-84_2
C3
L1
CN5
J5
POWER
SW2
U3
M5_ISP_CON
R1
4.7k
C5
OSC_S
C1
Step_Motor
CN3
RESET
C2
2950.000 mil
3675.000 mil


IR Sensor Array
Micro Mouse-VHDL
(c)1999, GoodKook
CR7
TR7
4.7k
4.7k
TR8
CR8
R13
R16
47k
47k
7808
10/0.5W
R17
C9
C10
CR3
TR3
CR5
47k
R9
4.7k
TR5
TR1
CR1
C1
R1
4.7k
R2
47k
C3
CR6
CR4
TR4
47k
TR6
TR2
CR2
C2
R3
4.7k
IR_Sensor
CN1
CN2
CN3
3450.000 mil
2900.000 mil


CN1
ADC
C3
C2
C4
U3
ADC0809
U4
VR7
VR6
U5
VR3
U1
VR2
VR8
LM324
VR5
ULS2064
VR4
LM324
VR1
RP1
CN2
IR_Sensor
CN3
CN4
2700.000 mil
2950.000 mil


Micro Mouse
Step Motor
Driver
C12
VR
C7
L_Motor
MACH211SP-J
C4
1/0.5W
R6
SLA7024M
2.4k
2.4k
SLA7024M
C9
MicroMouse-VHDL
(c)1999, GoodKook
R_Motor
1/0.5W
C8
2.4k
2.4k
C1
47k
C3
1/0.5W
47k
C2
C5
47k
1/0.5W
C6
47k
1825.000 mil
2850.000 mil