



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Zach M. Rubin	Project Number S1216
Project Title Compu-Drive	
Objectives/Goals Program a laptop so that it will interface with an R/C car wirelessly.	
Abstract Methods/Materials construct the interface. write the program (in C). Hardware: # 1x 630E Thinkpad; # 1x bread board; # 8x relays 5vdc DPDT; # 2x parallel port cables; # 1x plastic enclosure; # 1x Card board box; # 2x R/C micro tanks with radio controller (49 and 27 Mhz). Software: # Slackware Linux ; # gcc c compiler; # jed c development interface; # paragin package. Tools: # Soldering iron; # Solder sucker; # Solder ; # Pliers; # Screwdrivers ; # Duct tape; # Digital multimeter; # LEDs; # Drill; # Dremel; # Wire and strippers.	
Results YES i was able to do this however i came accross many things that gave me trouble such as linker errors segmentation faults null pins bios settings but with much time spent troubleshooting i was able to find the root of all these problems to come to the conclusion i had hoped for.	
Conclusions/Discussion I was able to do what i had set out to do. I had constructed the interface, written the code and built a platform which two little cars drove around on, as they were programmed to, the only part to the problem that that was less than satsfying (to me at least) was the fact that i could not predict the cars path with much precision, this was because the cars speed is inconsistant, and they usally go increasingly slow as the battery dies.	
Summary Statement Compu-Drive focouses on robotics and the ability computers have to control hardware in the outside world.	
Help Received the following people helped me get my code running correctly , via email: Chuck White, Al Hooton	