

# Condot\*

as reviewed by  
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Boston College

You don't have to have connections to connect with this program. It's the old childhood favorite of "connect the dots." The objective, however, is not to draw a picture by connecting the dots, but rather to carve out squares of "real estate" with the computer as an able adversary. The player who connects the two dots which complete a square gets ownership of that square. In addition, the player gets the added bonus of moving once more. This can be quite advantageous in certain situations. A nine-square grid is provided as a playing board.

The instructions (see REM statements in program) are not as clear as they might be. When you wish to connect two dots you must type in the coordinates (row, column) of the empty space between the dots. However, in identifying what the coordinates are, you must count the "dots" of the grid also. Lest this be equally confusing, a sample of the grid follows complete with an identification of each coordinate where a line may be drawn.

**Grid is on page with listing.**

In games that I played, the same moves could be replicated in a succeeding game. Thus, once you discover a winning game, you cannot lose (this may be a function of the particular random number generator in use). You'll find it interesting to note that the computer mirrors the player's move in so far as possible. You may also find that the game moves rather slowly, especially for the first three or four moves. Be patient! Once squares begin to fall, the games moves swiftly to its conclusion.

There are some modifications that you may wish to consider if you are going to adopt this program for regular use. In addition to improving the REM statements in the program, I would suggest:

1. Modifying the program so that the grid is printed after *both* players have moved (rather than each time a move is made);
2. Modifying the program so that once a player had ownership of a majority of the squares, the game would end rather than proceed to its inevitable conclusion; and
3. Modify the program so that the player's initials appear in each square he captures.

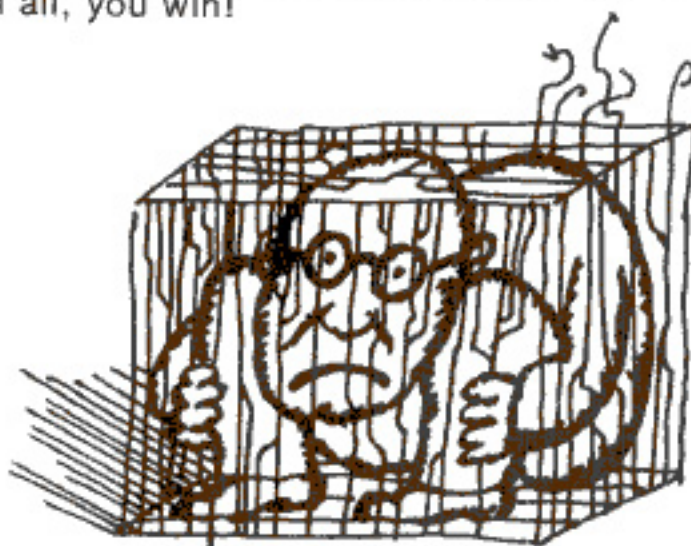
An interesting problem developed in the running of this program that you should be aware of. One particular sequence of moves resulted in a "hangup" in the execution of the program. This may be the result of a programming error, a typing error somewhere along the line, a system problem, or what-

\* **CONDOT** was written by Chuck Lund, St. Paul Public Schools, MN.

# CHASE

Author: Unknown  
Modified by: Bill Cotter, Pittsfield, Mass.  
Language: BASIC (Honeywell 600/6000)

**Description:** CHASE puts you in a maze made up of high-voltage fences and posts. This in itself isn't too unpleasant but there're also the five interceptor robots bent on just one thing—your destruction. If these robots touch you . . . that's the end of the game (and you!). There's one hope—make the robots hit the maze, or each other (they're like people—sometimes they'd rather be alone). If you destroy them all, you win!



**Listing and run of CHASE on the next page.**

ever. A few of us spent a little time debugging, but to no avail. In any case, five runs using the following sequence of moves resulted in an average execution time (until interrupt) of 40 CPU seconds.

Your moves:	1.	1,2
	2.	2,1
	3.	2,3
	4.	5,6
	5.	2,5
	6.	4,5
	7.	6,1
	8.	7,2

A sample run of a game (in this instance, the player being triumphant) follows. While the game may quickly lose its interest to all but those with nothing else to do, the program itself is well worth examining. Creating the flowcharts and source statements for this game would be a worthwhile endeavor, particularly as a project in a programming course. Furthermore, even the process of tracing through the existing source program to discover the game's algorithm would be a worthwhile exercise for the knowledgeable programmer.

**Listing and run of CONDOT 1 page over.**

```

00 REM CHASE
110 REM AUTHOR: UNKNOWN
120 REM MODIFIED TO RUN ON HONEYWELL 600/6000 BY BILL COTTER
130 PRINT"YOU ARE WITHIN THE WALLS OF A HIGH VOLTAGE MAZE"
140 PRINT"THE AREAS MARKED 'X' ARE HIGH VOLTAGE"
150 PRINT"YOU ARE THE '*' THE INTERCEPTORS ARE THE '+'"
160 PRINT"THE AREAS MARKED 'X' ARE HIGH VOLTAGE"
170 PRINT"YOUR ONLY CHANCE FOR SURVIVAL IS TO MANUEVER EACH"
180 PRINT"INTERCEPTOR INTO AN 'X'. ---- GOOD LUCK ----"
190 PRINT"MOVES ARE: 1,2,3"PRINT" 8,*,4"
200 PRINT" 7,6,5"PRINT
210 DIM A(10,20),N(2)
220 FOR B=1 TO 10
230 FOR C=1 TO 20
240 LET X=INT(10*RND(-1))
250 IF X=5 THEN 280
260 LET A(B,C)=ASC( )
270 GOTO 290
280 LET A(B,C)=ASC(X)
290 NEXT C
300 NEXT B
310 FOR D=1 TO 10
320 LET A(D,1)=ASC(X)
330 NEXT D
340 FOR E=1 TO 10
350 LET A(E,20)=ASC(X)
360 NEXT E
370 FOR F=1 TO 20
380 LET A(1,F)=ASC(X)
390 NEXT F
400 FOR G=1 TO 20
410 LET A(10,G)=ASC(X)
420 NEXT G
430 GOTO 500
440 LET H=INT(1+(10*RND(-1)))\IF H>10 THEN 440
450 LET I=INT(1+(20*RND(-1)))\IF I>20 THEN 450
460 IF A(H,I)=ASC(X) THEN 440
470 IF A(H,I)=ASC(*) THEN 440
480 IF A(H,I)=ASC(+) THEN 440
490 RETURN
500 GOSUB 440
510 LET A(H,I)=ASC(*)\LET J=H\LET K=I
520 GOSUB 440
530 LET A(H,I)=ASC(+)\LET L=H\LET M=I
540 GOSUB 440
550 LET A(H,I)=ASC(+)\LET N=H\LET O=I
560 GOSUB 440
570 LET A(H,I)=ASC(+)\LET P=H\LET Q=I
580 GOSUB 440
590 LET A(H,I)=ASC(+)\LET R=H\LET S=I
600 GOSUB 440
610 LET A(H,I)=ASC(+)\LET T=H\LET U=I
620 N(0)=1
630 FOR D2=1 TO 10
640 FOR B2=1 TO 20
650 N(1)=A(D2,B2)\CHANGE N TO N%\PRINT N%:
660 NEXT B2
670 PRINT
680 NEXT D2
690 INPUT Y\IF Y=0 THEN 800
700 LET V=J\LET W=K
710 ON Y GOTO 720,730,740,750,760,770,780,790
720 LET J=J-1\LET K=K-1\GOTO 800
730 LET J=J+1\GOTO 800
740 LET J=J-1\LET K=K+1\GOTO 800
750 LET K=K+1\GOTO 800
760 LET J=J+1\LET K=K-1\GOTO 800
770 LET J=J+1\GOTO 800
780 LET J=J+1\LET K=K-1\GOTO 800
790 LET K=K-1
800 IF A(J,K)=ASC(X) THEN 1160
810 LET A(V,W)=ASC( )\LET A(J,K)=ASC(*)
820 GOTO 940
830 IF A(X,Y)=ASC(X) THEN 910
840 LET V=X\LET W=Y
850 LET X=SGN(J-X)\LET Y=SGN(K-Y)
860 LET X=X+V\LET Y=Y+W
870 IF A(X,Y)=ASC(+) THEN 920\IF A(X,Y)=ASC( ) THEN 890
880 LET A(V,W)=ASC( )\RETURN
890 LET A(X,Y)=ASC(+)
900 LET A(V,W)=ASC( )
910 RETURN
920 PRINT "*** YOU HAVE BEEN DESTROYED BY A LUCKY COMPUTER ***"
930 GO TO 1180
940 LET X=L\LET Y=M\GOSUB 830
950 LET L=X\LET M=Y
960 LET X=N\LET Y=O\GOSUB 830
970 LET N=X\LET O=Y
980 LET X=P\LET Y=Q\GOSUB 830
990 LET P=X\LET Q=Y
1000 LET X=R\LET Y=S\GOSUB 830
1010 LET R=X\LET S=Y
1020 LET X=T\LET Y=U\GOSUB 830
1030 LET T=X\LET U=Y
1040 IF A(L,M)=ASC(X) THEN 1060
1050 GOTO 630
1060 IF A(N,O)=ASC(X) THEN 1080
1070 GOTO 630
1080 IF A(P,Q)=ASC(X) THEN 1100
1090 GOTO 630
1100 IF A(R,S)=ASC(X) THEN 1120
1110 GOTO 630
1120 IF A(T,U)=ASC(X) THEN 1140
1130 GOTO 630
1140 PRINT"YOU HAVE DESTROYED ALL YOUR OPPONENTS-THE GAME IS YOURS"
1150 GO TO 1180
1160 PRINT"YOU TOUCHED THE FENCE !!!!!!!!!!!!!!"
1170 PRINT"***** ZAP ***** YOU'RE DEAD!!!"
1180 PRINT"ANOTHER GAME (YES OR NO)?"
1190 INPUT N9$
1200 IF N9$<>"YES" THEN 1220
1210 GO TO 210
1220 END

```

CHASE

LISTING

YOU ARE WITHIN THE WALLS OF A HIGH VOLTAGE MAZE  
THERE ARE FIVE SECURITY MACHINES TRYING TO DESTROY YOU  
YOU ARE THE '\*' THE INTERCEPTORS ARE THE '+'  
THE AREAS MARKED 'X' ARE HIGH VOLTAGE  
YOUR ONLY CHANCE FOR SURVIVAL IS TO MANUEVER EACH  
INTERCEPTOR INTO AN 'X'. ---- GOOD LUCK ----  
MOVES ARE: 1,2,3  
8,\*,4  
7,6,5

SAMPLE RUN

```

XXXXXXXXXXXXXXXXXXXXX
X X X X X X X
X X+ X X X
X + X
X X + + X
X X * XX
XX X +X
XX XX X X X
X X X
XXXXXXXXXXXXXXXXXXXXX
77
XXXXXXXXXXXXXXXXXXXXX
X X X X X X
X X X X X X
X + X X
X + X X
X X + + XX
XX X * + X
XX XX X X X
X X X
XXXXXXXXXXXXXXXXXXXXX
77
XXXXXXXXXXXXXXXXXXXXX
X X X X X X
X X X X X X
X X X X X X
X + X X
X X + + XX
XX X * + X
XX XX X X X
X X X
XXXXXXXXXXXXXXXXXXXXX
75

```

Why was "7" a good move here?

YOU HAVE DESTROYED ALL YOUR OPPONENTS-THE GAME IS YOURS

AND ANOTHER RUN

```

XXX XXX XXX XXXXXX XXXXX
X X X X X X
X X X X X X
X X + X X
X X + X X
X X X X X
X X X X X
XXXXXXXXXXXXXXXXXXXXX
79
XXXXXXXXXXXXXXXXXXXXX
X X X X X X
X X X X X X
X X X X X X
X X + X X
X X + X X
X X X X X
X X X X X
XXXXXXXXXXXXXXXXXXXXX
75
XXXXXXXXXXXXXXXXXXXXX
X X X X X X
X X X X X X
X X X X X X
X X X X X X
X X X X X X
X X X X X X
XXXXXXXXXXXXXXXXXXXXX
71
*** YOU HAVE BEEN DESTROYED BY A LUCKY COMPUTER ***

```

Would a move of "8" have been better?



ready



# DEEPSPACE



Author: Unknown

Modified by: Bill Cotter, Pittsfield, Mass.

Language: BASIC (Honeywell 600/6000)

Description: DEEPSPACE is another version of a space battle. You become the commander of either a scout ship, cruiser, or battleship. You then pick the weapons, and planetary system to patrol, and it's time to do battle.

The closer you get to the enemy, the better your chance of destroying him. Unfortunately, his chance of destroying you also improves. If you get too close, you can damage yourself; when a vessel's damage rating reaches or exceeds 100, it's destroyed.

Suggestion: Change the time between reports—this will shorten the game by allowing you to get closer faster. Also, for a truly random game, Honeywell users should change RND(0) to RND(-1).

## PROGRAM LISTING

```

100 PRINT
110 PRINT
120 PRINT "DEEPSPACE  *!DAT$
130 PRINT
140 PRINT
150 PRINT "THIS IS DEEPSPACE, A TACTICAL SIMULATION OF SHIP-TO SHIP"
160 PRINT "COMBAT IN DEEP SPACE."
170 PRINT "DO YOU WISH INSTRUCTIONS (YES OR NO)"!INPUT IS
180 IF IS="YES" THEN 200
190 GO TO 610
200 PRINT "YOU ARE ONE OF A GROUP OF CAPTAINS ASSIGNED TO PATROL A"
210 PRINT "SECTION OF YOUR STAR EMPIRE'S BORDER AGAINST HOSTILE"
220 PRINT "ALIENS. ALL YOUR ENCOUNTERS HERE WILL BE AGAINST HOSTILE"
230 PRINT "VESSELS. YOU WILL FIRST BE REQUIRED TO SELECT A VESSEL"
240 PRINT "FROM ONE OF THREE TYPES, EACH WITH ITS OWN CHARACTERISTICS:"
250 PRINT
260 PRINT "TYPE", "SPEED", "CARGO SPACE", "PROTECTION"
270 PRINT "1 SCOUT", "10", "16", "1"
280 PRINT "2 CRUISER", "4", "24", "2"
290 PRINT "3 BATTLESHIP", "2", "30", "5"
300 PRINT
310 PRINT "SPEED IS GIVEN RELATIVE TO THE OTHER SHIPS."
320 PRINT "CARGO SPACE IS IN UNITS OF SPACE ABOARD SHIP WHICH CAN BE"
330 PRINT "FILLED WITH WEAPONS."
340 PRINT "PROTECTION IS THE RELATIVE STRENGTH OF THE SHIP'S ARMOR"
350 PRINT "AND FORCE FIELDS"
360 PRINT
370 PRINT "ONCE A SHIP HAS BEEN SELECTED, YOU WILL BE INSTRUCTED TO ARM"
380 PRINT "IT WITH WEAPONRY FROM THE FOLLOWING LIST:"
390 PRINT
400 PRINT "TYPE          CARGO SPACE    REL. STRENGTH"
410 PRINT "1 PHASER BANKS          12             4"
420 PRINT "2 ANTI-MATTER MISSILE   4              20"
430 PRINT "3 HYPERSPACE LANCE      4              16"
440 PRINT "4 PHOTON TORPEDO        2              10"
450 PRINT "5 HYPERON NEUTRALIZATION FIELD 20             6"
460 PRINT
470 PRINT "WEAPONS #1 & #5 CAN BE FIRED 100 TIMES EACH; ALL OTHERS CAN"
480 PRINT "BE FIRED ONCE FOR EACH ON BOARD."
490 PRINT "A TYPICAL LOAD FOR A CRUISER MIGHT CONSIST OF:"
500 PRINT "    1-#1 PHASER BANK          =12"
510 PRINT "    2-#3 HYPERSPACE LANCES    =8"
520 PRINT "    2-#4 PHOTON TORPEDOES     =4"
530 PRINT "    -----"
540 PRINT "                                24 UNITS OF CARGO"
550 PRINT "A WORD OF CAUTION: FIRING HIGH YIELD WEAPONS AT CLOSE (< 100)"
560 PRINT "RANGE CAN BE DANGEROUS TO YOUR SHIP AND MINIMAL DAMAGE CAN"
570 PRINT "OCCUR AS FAR OUT AS 200 IN SOME CIRCUMSTANCES."
580 PRINT
590 PRINT "RANGE IS GIVEN IN THOUSANDS OF KILOMETERS."

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DEEPSPACE 05/29/75 SAMPLE RUN

THIS IS DEEPSPACE, A TACTICAL SIMULATION OF SHIP-TO SHIP  
COMBAT IN DEEP SPACE.  
DO YOU WISH INSTRUCTIONS (YES OR NO) ?NO  
DO YOU WISH A MANEUVER CHART ?YES  
\*\*\*\*\*

### MANEUVER CHART

- 1 FIRE PHASERS
- 2 FIRE ANTI-MATTER MISSILE
- 3 FIRE HYPERSPACE LANCE
- 4 FIRE PHOTON TORPEDO
- 5 ACTIVATE HYPERON NEUTRALIZATION FIELD
- 6 SELF-DESTRUCT
- 7 CHANGE VELOCITY
- 8 DISENGAGE
- 9 PROCEED

YOU HAVE A CHOICE OF THREE SYSTEMS TO PATROL.  
1 GRID  
2 DENEK  
3 ARCTURUS

SELECT A SYSTEM(1-3) ?3  
WHICH SPACECRAFT WOULD YOU LIKE.(1-3) ?2  
YOU HAVE 24 UNITS OF CARGO SPACE TO FILL WITH WEAPONRY.  
CHOOSE A WEAPON AND THE AMOUNT YOU WISH. ?1,1  
YOU HAVE 12 UNITS OF CARGO SPACE TO FILL WITH WEAPONRY.  
CHOOSE A WEAPON AND THE AMOUNT YOU WISH. ?2,1  
YOU HAVE 8 UNITS OF CARGO SPACE TO FILL WITH WEAPONRY.  
CHOOSE A WEAPON AND THE AMOUNT YOU WISH. ?3,1  
YOU HAVE 4 UNITS OF CARGO SPACE TO FILL WITH WEAPONRY.  
CHOOSE A WEAPON AND THE AMOUNT YOU WISH. ?4,2

RANGE TO TARGET: 658.3301  
RELATIVE VELOCITY: 3.154701  
ACTION ?9

RANGE TO TARGET: 599.0996  
RELATIVE VELOCITY: 3.154701  
ACTION ?9

RANGE TO TARGET: 539.8691  
RELATIVE VELOCITY: 3.154701  
ACTION ?7

CHANGE TO BE EFFECTED ?2  
CHANGE BEYOND MAXIMUM POSSIBLE  
INCREASING TO MAXIMUM

RANGE TO TARGET: 460.1757  
RELATIVE VELOCITY: 4  
ACTION ?9

DAMAGE CONTROL REPORTS YOUR VESSEL DAMAGE AT: 5.329875

RANGE TO TARGET: 380.4822  
RELATIVE VELOCITY: 4  
ACTION ?1

SCANNERS REPORT ENEMY DAMAGE NOW: 1.260274  
DAMAGE CONTROL REPORTS YOUR VESSEL DAMAGE AT: 10.74178

RANGE TO TARGET: 300.7888  
RELATIVE VELOCITY: 4  
ACTION ?2

SCANNERS REPORT ENEMY DAMAGE NOW: 40.81256  
DAMAGE CONTROL REPORTS YOUR VESSEL DAMAGE AT: 15.35915

RANGE TO TARGET: 221.0953  
RELATIVE VELOCITY: 4  
ACTION ?1

SCANNERS REPORT ENEMY DAMAGE NOW: 43.63048  
DAMAGE CONTROL REPORTS YOUR VESSEL DAMAGE AT: 45.269

RANGE TO TARGET: 141.4019  
RELATIVE VELOCITY: 4  
ACTION ?3

SCANNERS REPORT ENEMY DAMAGE NOW: 144.1723  
ENEMY VESSEL DESTROYED  
DAMAGE CONTROL REPORTS YOUR VESSEL DAMAGE AT: 140.0901  
YOUR VESSEL HAS BEEN DESTROYED  
ANOTHER BATTLE ?NO  
TRY AGAIN LATER!

LISTING continues on next page.

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GO TO 640
610 PRINT "DO YOU WISH A MANEUVER CHART?"\INPUT M$
620 IF M$="YES" THEN 640
630 GO TO 770
640 PRINT "
650 PRINT "      MANEUVER CHART      " *****
660 PRINT
670 PRINT " 1      FIRE PHASERS"
680 PRINT " 2      FIRE ANTI-MATTER MISSILE"
690 PRINT " 3      FIRE HYPERSPACE LANCE"
700 PRINT " 4      FIRE PHOTON TORPEDO"
710 PRINT " 5      ACTIVATE HYPERON NEUTRALIZATION FIELD"
720 PRINT " 6      SELF-DESTRUCT"
730 PRINT " 7      CHANGE VELOCITY"
740 PRINT " 8      DISENGAGE"
750 PRINT " 9      PROCEED"
760 PRINT
770 PRINT"YOU HAVE A CHOICE OF THREE SYSTEMS TO PATROL."
780 PRINT"1 ORION"
790 PRINT"2 DENEBO"
800 PRINT"3 ARCTURUS"
810 PRINT "SELECT A SYSTEM(1-3)"\INPUT S$
820 IF S$=1 THEN 2380
830 IF S$=2 THEN 2430
840 GO TO 2480
850 D0=0
860 D1=0
870 N1=0
880 N2=0
890 N3=0
900 N4=0
910 D=0
920 PRINT"WHICH SPACECRAFT WOULD YOU LIKE.(1-3)"\INPUT S
930 IF S=1 THEN 1790
940 IF S=2 THEN 1830
950 IF S=3 THEN 1870
960 GO TO 920
970 C=C0
980 PRINT"YOU HAVE *C*UNITS OF CARGO SPACE TO FILL WITH WEAPONRY."
990 PRINT"CHOOSE A WEAPON AND THE AMOUNT YOU WISH." \INPUT W,N
1000 IF W=1 THEN 1910
1010 IF W=2 THEN 2010
1020 IF W=3 THEN 2100
1030 IF W=4 THEN 2190
1040 IF W=5 THEN 2280
1050 GO TO 980
1060 IF W*C1>C THEN 2530
1070 C=C-N*C1
1080 IF W=1 THEN 1990
1090 IF W=2 THEN 2080
1100 IF W=3 THEN 2170
1110 IF W=4 THEN 2260
1120 GO TO 2360
1130 IF C>1 THEN 980
1140 REM
1150 S1=S0*RN(0)
1160 R=(3*RN(0)+5)*100
1170 PRINT
1180 PRINT "RANGE TO TARGET:"*R
1190 PRINT "RELATIVE VELOCITY:"*S1
1200 PRINT"ACTION" \INPUT M
1210 IF M=1 THEN 1940
1220 IF M=2 THEN 2030
1230 IF M=3 THEN 2120
1240 IF M=4 THEN 2210
1250 IF M=5 THEN 2310
1260 IF M=6 THEN 1660
1270 IF M=7 THEN 1390
1280 IF M=8 THEN 2760
1290 IF R<500 THEN 1500
1300 IF S1>0 THEN 1330
1310 R=R+(S1*8.3)^1.25
1320 GO TO 1340
1330 R=R-(S1*8.3)^1.25
1340 IF R>1500 THEN 2590
1350 IF R>0 THEN 1370
1360 R=-R
1370 PRINT
1380 GO TO 1180
1390 PRINT"CHANGE TO BE EFFECTED" \INPUT S2
1400 IF (S1+S2)>S0 THEN 2550
1410 S1=S1+S2
1420 GO TO 1180
1430 FO=F1*(Z/R)^1.5
1440 REM
1450 D0=(2*FO+3*FO*RN(0))/5
1460 D=D0
1470 PRINT"SCANNERS REPORT ENEMY DAMAGE NOW:"*D
1480 IF D>99 THEN 2720
1490 GO TO 1510
1500 D0=0
1510 REM
1520 K=E1+E2*RN(0)
1530 REM
1540 E=E3+E4*RN(0)+5/PO*RN(0)
1550 REM
1560 F3=E*(K/R)^1.85
1570 D2=(3*F3+3*F3*RN(0))/5.5
1580 D1=D1+D2
1590 IF (Z*D0)/(R*500)>2.2 THEN 1620
1600 D3=D0*2/(R^2*PO)
1610 D1=D1+D3
1620 PRINT"DAMAGE CONTROL REPORTS YOUR VESSEL DAMAGE AT:"*D1
1630 IF D1>99 THEN 2740
1640 IF D1>99 THEN 2760
1650 GO TO 1300
1660 PRINT "SELF DESTRUCT FAILSAFE ACTIVATED!!"
1670 PRINT"INPUT 1 TO RELEASE FAILSAFE" \INPUT U
1680 IF U=1 THEN 1700
1690 GO TO 1290

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1700 PRINT "SELF DESTRUCT ACCOMPLISHED"
1710 IF R>60 THEN 1740
1720 PRINT"ENEMY VESSEL ALSO DESTROYED"
1730 GO TO 2760
1740 D4=3200/R
1750 D=D+D4
1760 IF D>99 THEN 1720
1770 PRINT"ENEMY VESSEL SURVIVES WITH"*D1"DAMAGE"
1780 GO TO 2760
1790 S0=10
1800 C0=16
1810 P0=1
1820 GO TO 970
1830 S0=4
1840 C0=24
1850 P0=2
1860 GO TO 970
1870 S0=2
1880 C0=30
1890 P0=5
1900 GO TO 970
1910 C1=.12
1920 N=100
1930 GO TO 1060
1940 P1=4
1950 IF N1=0 THEN 2610
1960 N1=N1-1
1970 Z=200
1980 GO TO 1430
1990 N1=N1+N
2000 GO TO 1130
2010 C1=4
2020 GO TO 1060
2030 P1=20
2040 IF N2=0 THEN 2640
2050 N2=N2-1
2060 Z=500
2070 GO TO 1430
2080 N2=N2+N
2090 GO TO 1130
2100 C1=4
2110 GO TO 1060
2120 P1=16
2130 IF N3=0 THEN 2660
2140 N3=N3-1
2150 Z=550
2160 GO TO 1430
2170 N3=N3+N
2180 GO TO 1130
2190 C1=2
2200 GO TO 1060
2210 P1=10
2220 IF N4=0 THEN 2680
2230 N4=N4-1
2240 Z=400
2250 GO TO 1430
2260 N4=N4+N
2270 GO TO 1130
2280 C1=.20
2290 N=100
2300 GO TO 1060
2310 P1=6
2320 IF N5=0 THEN 2700
2330 N5=N5-1
2340 Z=250
2350 GO TO 1430
2360 N5=N5+N
2370 GO TO 1130
2380 E1=150
2390 E2=500
2400 E3=3
2410 E4=4
2420 GO TO 850
2430 E1=200
2440 E2=350
2450 E3=4
2460 E4=3
2470 GO TO 850
2480 E1=150
2490 E2=400
2500 E3=5
2510 E4=2
2520 GO TO 850
2530 PRINT"NOT ENOUGH SPACE. RESELECT"
2540 GO TO 980
2550 PRINT"CHANGE BEYOND MAXIMUM POSSIBLE"
2560 PRINT"INCREASING TO MAXIMUM"
2570 S1=50
2580 GO TO 1300
2590 PRINT"OUT OF SENSOR RANGE,AUTOMATIC DISENGAGE."
2600 GO TO 2760
2610 PRINT"PHASER BANKS DRAINED"
2620 PRINT"SELECT ANOTHER COURSE OF ACTION"
2630 GO TO 1200
2640 PRINT" ALL ANTI-MATTER MISSILES EXPENDED"
2650 GO TO 2620
2660 PRINT"ALL HYPERSPACE LANCES EXPENDED"
2670 GO TO 2620
2680 PRINT "ALL PHOTON TORPEDO TUBES EMPTY"
2690 GO TO 2620
2700 PRINT "HYPERON NEUTRALIZATION FIELD DRAINED"
2710 GO TO 2620
2720 PRINT "ENEMY VESSEL DESTROYED"
2730 GO TO 1510
2740 PRINT"YOUR VESSEL HAS BEEN DESTROYED"
2750 GO TO 2760
2760 PRINT" ANOTHER BATTLE" \INPUT R$
2770 IF R$="YES" THEN 810
2780 PRINT"TRY AGAIN LATER!"
2790 END

```

# LEM

Author: Unknown

Modified by: Bill Cotter, Pittsfield, Mass.

Language: BASIC (Honeywell 600/6000)

Description: The user is put at the controls of yet another Lunar Module. The first task is to pick the initial conditions—speed, etc. This lets the user progress in a learning fashion; there is no random factoring involved.

Factors to be considered:

- (1) Landing speed—land harder than 3 meters/sec and that's it.
- (2) Moving too fast over the terrain causes you to flip when you land.
- (3) Your engines will blow up if used to the limit.

Suggestions: Improve lines 2080-2250 (the landing plot).

```

100 PRINT "THIS IS A LUNAR LANDING PROGRAM."
110 PRINT "DO YOU WISH INSTRUCTIONS?"
120 INPUT Y$
130 IF Y$="NO" GOTO 330
140 PRINT "THIS IS THE LANDING ZONE."
150 PRINT TAB(10);"X AXIS (+)"
160 FOR I=1 TO 4
170 PRINT TAB(10);"! "
180 NEXT I
190 PRINT "-----+-----> X AXIS (+)"
200 FOR I=1 TO 5
210 PRINT TAB(10);"! "
220 NEXT I
230 PRINT "THE POSITIVE Z AXIS IS OUT OF THE PAPER"
240 PRINT "YOU ARE TRYING TO LAND ON THE CROSS."
250 PRINT "YOU HAVE CONTROL OF YOUR VERTICAL(Z), HORIZONTAL(Y),"
260 PRINT "AND TRANSVERSE(X) VELOCITIES. YOU ALSO HAVE THE "
270 PRINT "ADDITIONAL ABILITY TO CONTROL THE LENGTH OF TIME OF "
280 PRINT "BURN. YOU WILL SUPPLY ALL INITIAL DATA."
290 PRINT "ALL UNITS ARE METRIC."
300 PRINT
310 PRINT "REMEMBER IF YOU RUN OUT OF FUEL THATS IT."
320 PRINT
330 PRINT "WHAT IS THE INITIAL ALTITUDE?"
340 INPUT A3
350 PRINT "WHAT IS THE INITIAL VERTICAL VELOCITY (DOWN IS +)?"
360 INPUT V6
370 PRINT "WHAT IS THE DISTANCE Y?"
380 INPUT D4
390 PRINT "WHAT IS Y VELOCITY?"
400 INPUT V4
410 PRINT "WHAT IS THE DISTANCE X?"
420 INPUT D5
430 PRINT "WHAT IS THE X VELOCITY?"
440 INPUT V5
450 PRINT "WHAT IS THE MAXIMUM BURN RATE?"
460 INPUT M
470 PRINT "WHAT IS YOUR FUEL CAPACITY?"
480 INPUT F3
490 PRINT "WHAT IS THE GRAVITATIONAL CONSTANT?"
500 INPUT G
510 PRINT "WHAT IS THE NAME OF YOUR SHIP?"
520 INPUT N1$
530 PRINT
540 PRINT "CONTROL TO "N1$" COMMENCE LANDING."
550 GOSUB 1900
560 LET V=V6
570 LET V1=V4
580 LET V2=V5
590 LET T=0
600 LET F=F3
610 LET A=A3
620 LET D1=D4
630 LET D2=D5
640 LET T3=T3+T
650 GOSUB 2080
660 PRINT "TIME ="T3"SEC."
670 PRINT "ALT="A" METERS V="V" METERS/SEC"
680 PRINT "DIST. X="D2" METERS. V="V2" METERS/SEC"
690 PRINT "DIST. Y="D1" METERS. V="V1" METERS/SEC"
700 PRINT "FUEL="F" UNITS"
710 PRINT "TIME INTERVAL:"
720 INPUT T
730 PRINT "VERTICAL(Z) BURN:"
740 INPUT B
750 PRINT "TRANSVERSE(X) BURN:"

```

PROGRAM  
LISTING

```

760 INPUT B2
770 LET B2=-B2
780 PRINT "HORIZONTAL (Y) BURN:"
790 INPUT B1
800 LET B1=-B1
810 PRINT
820 GOTO 1340
830 LET F1=F
840 LET A1=A
850 IF F<=0 GOTO 1190
860 LET A=A-V*T-((G-B)*T)/2
870 IF A<=0 GOTO 910
880 LET V=V+(G-B)*T
890 GOSUB 2010
900 GOTO 640
910 LET G1=G-B
920 LET T1=((-2*V)+SQR(ABS(4*V^2+B*G*A1)))/(2*G)
930 LET V=V+(G1*T1)
940 GOSUB 2010
950 LET T4=T3+T1
960 IF V<3 GOTO 990
970 PRINT "AT T="T4" THE "N1$" CRASHED WITH A DESCENT "
980 GOTO 1000
990 PRINT "AT T="T4"THE "N1$" LANDED WITH A DESCENT "
1000 PRINT "VELOCITY OF"V" M/SEC"
1010 LET R=SQR(V1^2+V2^2)
1020 IF R>5 GOTO 1050
1030 PRINT "WITH A HORIZONTAL VELOCITY OF "R" M/SEC"
1040 GOTO 1080
1050 LET P9=1
1060 PRINT "AND FLIPPED OVER WITH A HORIZONTAL VELOCITY OF"R" M/SEC"
1070 LET P9=1
1080 PRINT "THE LANDING POINT WAS AT ("D2","D1")"
1090 LET D=SQR(D1^2+D2^2)
1100 IF R<=5 GOTO 1140
1110 PRINT "D" METERS FROM THE LANDING SITE."
1120 GOTO 1790
1130 IF P9=1 GOTO 1790
1140 IF D>100 GOTO 1170
1150 PRINT "BEAUTIFUL "N1$" YOU WERE "D" METERS FROM THE LANDING SITE"
1160 GOTO 1790
1170 PRINT "GOOD LANDING "N1$", BUT YOU WERE "D" METERS OFF"
1180 GOTO 1790
1190 LET T1=1/(ABS(B)+ABS(B1)+ABS(B2))
1200 LET A=A-(V*((G-B)/2))
1210 LET V=V+(G-B)
1220 LET T1=((-2*V)+SQR(4*V^2+B*A1*G))/(2*G)
1230 LET V=V+G*T1
1240 GOSUB 2010
1250 LET D1=D1+V1*(T1-T)
1260 LET D2=D2+V2*(T1-T)
1270 IF V<3 GOTO 950
1280 LET T4=T3+T1
1290 PRINT "THE "N1$+N2" CRASHED AT T="T4"SEC AT THE POINT ("D2","D1")"
1300 LET R=SQR(V1^2+V2^2)
1310 PRINT "WITH A DOWNWARD VELOCITY "V" AND A FORWARD VELOCITY"R
1320 PRINT "CRASH DUE TO PILOT ERROR (THE IDIOT RAN OUT OF FUEL)"
1330 GOTO 1790
1340 IF ABS(B)<=M GOTO 1400
1350 IF B<0 GOTO 1380
1360 LET B=M
1370 GOTO 1390
1380 LET B=-M
1390 LET Z=Z+1
1400 IF ABS(B1)<=M GOTO 1460
1410 IF B1<0 GOTO 1440
1420 LET B1=M
1430 GOTO 1450
1440 LET B1=-M
1450 LET Z1=Z1+1
1460 IF ABS(B2)<=M GOTO 1520
1470 IF B2<0 GOTO 1500
1480 LET B2=M
1490 GOTO 1510
1500 LET B2=-M
1510 LET Z2=Z2+1
1520 LET F=F-((ABS(B)+ABS(B1)+ABS(B2))*T)
1530 IF Z=1 GOTO 1600
1540 IF Z=2 GOTO 1780
1550 IF Z1=1 GOTO 1660
1560 IF Z1=2 GOTO 1780
1570 IF Z2=1 GOTO 1720
1580 IF Z2=2 GOTO 1780
1590 GOTO 1770
1600 IF B=0 GOTO 1550
1610 LET B=B-1
1620 IF B=0 GOTO 1780
1630 GOSUB 1880
1640 PRINT "VERTICAL ENGINE WILL BLOW IN" E " BURNS"
1650 GOTO 1550
1660 IF B1=0 GOTO 1570
1670 LET B1=B1-1
1680 IF B1=0 GOTO 1780
1690 GOSUB 1880
1700 PRINT "HORIZONTAL ENGINE WILL BLOW IN" E1 " BURNS"
1710 GOTO 1570
1720 IF B2=0 GOTO 1770
1730 LET B2=B2-1
1740 IF B2=0 GOTO 1780
1750 GOSUB 1880
1760 PRINT "TRANSVERSE ENGINE WILL BLOW IN" E2 " BURNS"
1770 GOTO 840

```



(MORE)

```

1990 GOSUB 1990
1790 PRINT
1800 PRINT "WOULD YOU LIKE TO TRY TO CRASH IT AGAIN STUPID?"
1810 INPUT V$
1820 IF V$="NO" GOTO 1870
1830 PRINT "SAME INITIAL VALUES"
1840 INPUT V$
1850 IF V$="YES" GOTO 530
1860 GOTO 320
1870 STOP
1880 PRINT " "
1890 RETURN
1900 LET T3=0
1910 LET Z=0
1920 LET Z1=0
1930 LET Z2=0
1940 LET E=11
1950 LET E1=11
1960 LET E2=11
1970 LET P9=0
1980 RETURN
1990 PRINT "BANG!!!!!!!!!!!"
2000 RETURN
2010 LET V7=V1-B1*T
2020 LET D1=D1+(V1*T)+(T*(V1-V7))/2
2030 LET V8=V2-B2*T
2040 LET D2=D2+(V2*T)+(T*(V2-V8))/2
2050 LET V1=V7
2060 LET V2=V8
2070 RETURN
2080 IF A>100 GOTO 2250
2090 IF D2>100 GOTO 2250
2100 IF D1>100 GOTO 2250
2110 LET Q2=INT(D2/10)+10
2120 LET Q1=-INT(D1/20)+5
2130 PRINT "T="T3
2140 FOR I=1 TO 11
2150 IF I<>Q1 GOTO 2210
2160 IF I=6 GOTO 2190
2170 PRINT TAB(10);"!";TAB(Q2);"X ALTITUDE="A
2180 GOTO 2240
2190 PRINT "-----";TAB(Q2);"X ALTITUDE="A
2200 GOTO 2240
2210 IF I=6 GOTO 2230
2220 GOTO 2240
2230 PRINT "-----"
2240 NEXT I
2250 RETURN
2260 END

```

**SAMPLE RUN**

THIS IS A LUNAR LANDING PROGRAM.  
DO YOU WISH INSTRUCTIONS ?NO  
WHAT IS THE INITIAL ALTITUDE ?600  
WHAT IS THE INITIAL VERTICAL VELOCITY (DOWN IS +) ?25  
WHAT IS THE DISTANCE Y ?200  
WHAT IS Y VELOCITY ?-10  
WHAT IS THE DISTANCE X ?25  
WHAT IS THE X VELOCITY ?1  
WHAT IS THE MAXIMUM BURN RATE ?50  
WHAT IS YOUR FUEL CAPACITY ?1200  
WHAT IS THE GRAVITATIONAL CONSTANT ?.6  
WHAT IS THE NAME OF YOUR SHIP ?AQUARIUS

CONTROL TO AQUARIUS COMMENCE LANDING.  
TIME = 0 SEC.  
ALT= 600 METERS V= 25 METERS/SEC  
DIST. X= 25 METERS. V= 1 METERS/SEC  
DIST. Y= 200 METERS. V= -10 METERS/SEC  
FUEL= 1200 UNITS  
TIME INTERVAL ?5  
VERTICAL(Z) BURN ?0  
TRANSVERSE(X) BURN ?-.2  
HORIZONTAL (Y) BURN ?0

TIME = 5 SEC.  
ALT= 473.5 METERS V= 28 METERS/SEC  
DIST. X= 32.5 METERS. V= 0 METERS/SEC  
DIST. Y= 150 METERS. V= -10 METERS/SEC  
FUEL= 1199 UNITS  
TIME INTERVAL ?10  
VERTICAL(Z) BURN ?0  
TRANSVERSE(X) BURN ?0  
HORIZONTAL (Y) BURN ?0

TIME = 15 SEC.  
ALT= 190.5 METERS V= 34 METERS/SEC  
DIST. X= 32.5 METERS. V= 0 METERS/SEC  
DIST. Y= 50 METERS. V= -10 METERS/SEC  
FUEL= 1199 UNITS  
TIME INTERVAL ?2  
VERTICAL(Z) BURN ?10  
TRANSVERSE(X) BURN ?-.2  
HORIZONTAL (Y) BURN ?2

TIME = 17 SEC.  
ALT= 131.9 METERS V= 15.2 METERS/SEC  
DIST. X= 32.9 METERS. V= -.4 METERS/SEC  
DIST. Y= 26 METERS. V= -6 METERS/SEC  
FUEL= 1174.6 UNITS  
TIME INTERVAL ?4  
VERTICAL(Z) BURN ?33  
TRANSVERSE(X) BURN ?0  
HORIZONTAL (Y) BURN ?1.5

T= 21  
-----X ALTITUDE= 75.9  
TIME = 21 SEC.  
ALT= 75.9 METERS V= 3.599999 METERS/SEC  
DIST. X= 31.3 METERS. V= -.4 METERS/SEC  
DIST. Y= -10 METERS. V=-5.96046e-08 METERS/SEC  
FUEL= 1156.6 UNITS  
TIME INTERVAL ?10  
VERTICAL(Z) BURN ?5  
TRANSVERSE(X) BURN ?0  
HORIZONTAL (Y) BURN ?0

T= 31  
-----X ALTITUDE= 19.40001  
TIME = 31 SEC.  
ALT= 19.40001 METERS V= 0.599999 METERS/SEC  
DIST. X= 27.3 METERS. V= -.4 METERS/SEC  
DIST. Y= -10 METERS. V=-5.96046e-08 METERS/SEC  
FUEL= 1151.6 UNITS  
TIME INTERVAL ?1  
VERTICAL(Z) BURN ?5  
TRANSVERSE(X) BURN ?-1  
HORIZONTAL (Y) BURN ?0

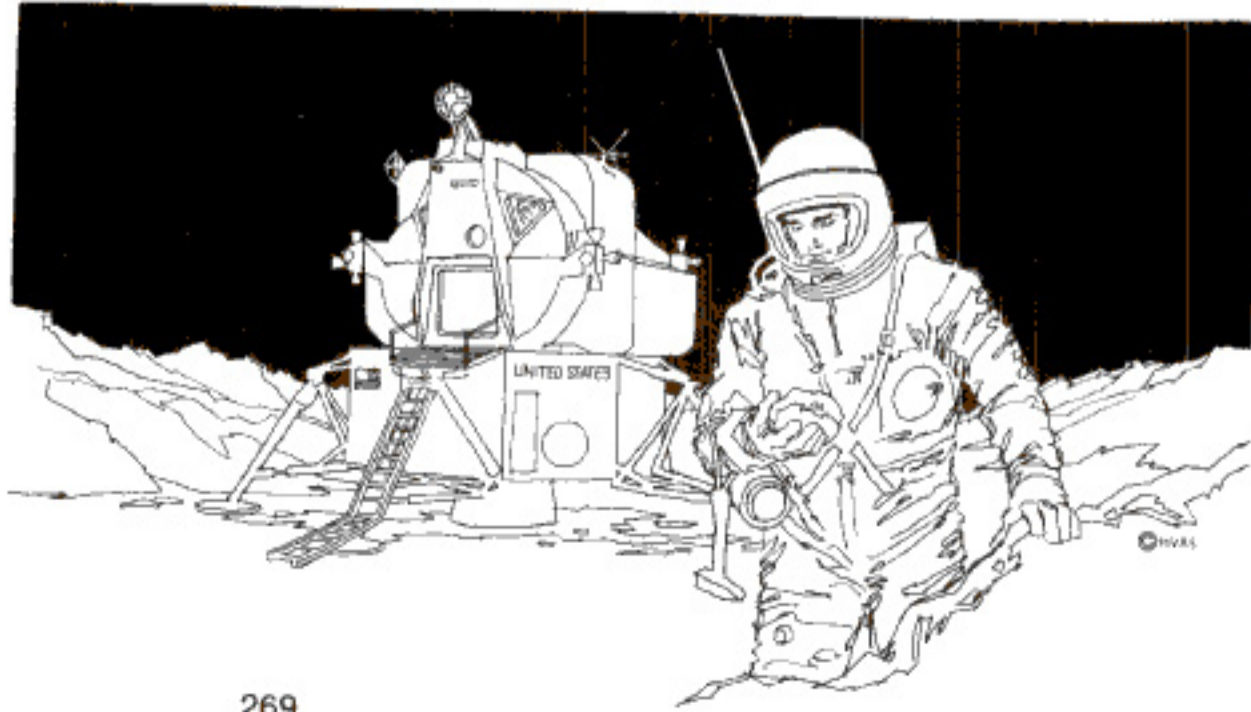
T= 32  
-----X ALTITUDE= 15.00001  
TIME = 32 SEC.  
ALT= 15.00001 METERS V= 2.199999 METERS/SEC  
DIST. X= 27.4 METERS. V= -1.4 METERS/SEC  
DIST. Y= -10 METERS. V=-5.96046e-08 METERS/SEC  
FUEL= 1145.6 UNITS  
TIME INTERVAL ?2  
VERTICAL(Z) BURN ?5  
TRANSVERSE(X) BURN ?0  
HORIZONTAL (Y) BURN ?0

T= 34  
-----X ALTITUDE= 10.50001  
TIME = 34 SEC.  
ALT= 10.50001 METERS V= 2.399999 METERS/SEC  
DIST. X= 24.6 METERS. V= -1.4 METERS/SEC  
DIST. Y= -10 METERS. V=-5.96046e-08 METERS/SEC  
FUEL= 1144.6 UNITS  
TIME INTERVAL ?2  
VERTICAL(Z) BURN ?7  
TRANSVERSE(X) BURN ?7  
HORIZONTAL (Y) BURN ?0

T= 36  
-----X ALTITUDE= 5.800013  
TIME = 36 SEC.  
ALT= 5.800013 METERS V= 2.199999 METERS/SEC  
DIST. X= 20.4 METERS. V=-1.49012e-08 METERS/SEC  
DIST. Y= -10 METERS. V=-5.96046e-08 METERS/SEC  
FUEL= 1141.8 UNITS  
TIME INTERVAL ?2  
VERTICAL(Z) BURN ?8  
TRANSVERSE(X) BURN ?0  
HORIZONTAL (Y) BURN ?0

T= 38  
-----X ALTITUDE= 1.600014  
TIME = 38 SEC.  
ALT= 1.600014 METERS V= 1.799999 METERS/SEC  
DIST. X= 20.4 METERS. V=-1.49012e-08 METERS/SEC  
DIST. Y= -10 METERS. V=-5.96046e-08 METERS/SEC  
FUEL= 1140.2 UNITS  
TIME INTERVAL ?2  
VERTICAL(Z) BURN ?7  
TRANSVERSE(X) BURN ?0  
HORIZONTAL (Y) BURN ?0

AT T= 38.78595 THE AQUARIUS LANDED WITH A DESCENT VELOCITY OF  
1.721405 M/SEC  
WITH A HORIZONTAL VELOCITY OF 6.14301e-08 M/SEC  
THE LANDING POINT WAS AT ( 20.4 , -10 )  
BEAUTIFUL AQUARIUS YOU WERE 22.71915 METERS FROM THE LANDING SITE  
WOULD YOU LIKE TO TRY TO CRASH IT AGAIN STUPID ?NO



# ROADRACE



*Author:* Unknown

*Modified by:* Bill Cotter, Pittsfield, Mass.

*Description:* You are the driver of a race car on the notorious NY Route 20. You'll have to drive 5 miles with ½ gallon of gas, while keeping alert for changes in the road conditions, other cars, etc.

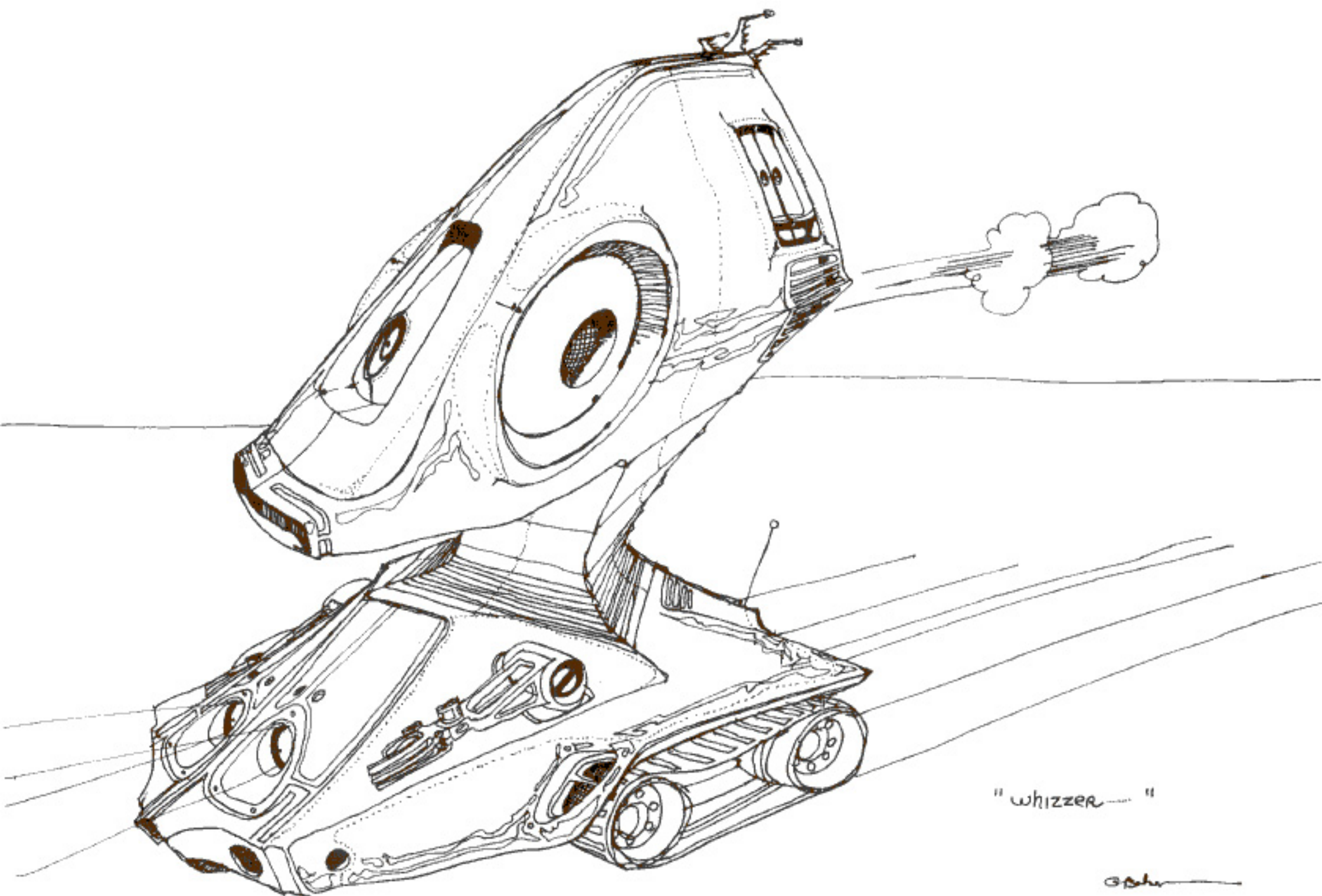
At the start you pick your car and course. During the race you control braking and acceleration.

Watch out for passing another car! If you try to go the same speed he's going, you're going to meet a Greyhound bus head-on!

*Suggestions:* The game is tough to win. I usually wipe out in a curve or run out of gas. You might want to increase your MPG rating . . . look at line 870.

Good luck!

*Listing and run on next page.*



"whizzer"

GPH

```

100 PRINT "THIS IS THE PITTSFIELD-ALBANY"
101 PRINT "ROAD RALLY"
102 PRINT
103 PRINT "WELCOME TO THE FIRST ANNUAL PITTSFIELD-TO-ALBANY ROAD RALLY."
104 PRINT "YOU'LL BE DRIVING DOWN RT. 20, TRYING TO WIN THE RACE AND"
105 PRINT "STAY ALIVE IN THE BARGAIN. GOOD LUCK!!"
106 PRINT
107 PRINT "YOU HAVE YOUR CHOICE OF: (1) A VW (2) 283 NOVA"
108 PRINT "(3) Z-28 OR (4) FERRARI"
109 PRINT
110 PRINT "CHOOSE THE CAR YOU WANT BY THE NUMBER IN FRONT OF IT."
111 PRINT "REMEMBER, THE BETTER THE CAR THE MORE GAS IT USES."
112 PRINT "WHICH CAR?"
113 INPUT C1
114 LET C1=INT(C1)
115 IF C1>4 THEN 280
116 IF C1 < 1 THEN 280
117 GO TO 300
118 PRINT "INVALID CAR NUMBER. NEW CAR "
119 GO TO 230
120 PRINT
121 IF N2=1 THEN 350
122 PRINT "YOU NOW CHOOSE WHICH COURSE YOU WANT TO RACE ON."
123 PRINT "THE EASIEST COURSE IS NUMBER 1, AND IS THE STRAIGHTEST"
124 PRINT "ROUTE. NUMBER 5 CONSISTS MOSTLY OF TURNS AND TWISTS."
125 PRINT "WHICH COURSE DO YOU WANT (1 TO 5)?"
126 INPUT C2
127 LET C2=INT(C2)
128 IF C2 < 1 THEN 410
129 IF C2 > 5 THEN 410
130 GO TO 430
131 PRINT "INVALID COURSE NUMBER. NEW CHOICE "
132 GO TO 360
133 IF N2=1 THEN 490
134 PRINT "YOU WILL NEED TO TRAVEL 5 MILES WITH .5 GALLONS OF GAS"
135 PRINT "YOUR STATUS WILL BE SHOWN EACH 10 SECONDS. AFTER EACH STATUS"
136 PRINT "CHECK YOU WILL BE ASKED FOR A NEW RATE OF GAS. A RATE OF"
137 PRINT "+10 IS HARD ACCELERATION, AND -10 IS HARD BRAKING. ANY NUMBER"
138 PRINT "IN BETWEEN IS ALLOWABLE."
139 FOR I=1 TO C1
140 READ B,M,S
141 LET B=B/10
142 NEXT I
143 LET A1=.5
144 LET M1=0
145 LET C1=C1/2
146 LET V=0
147 PRINT
148 LET R1=0
149 LET T=0
150 LET D=0
151 LET Q1=0
152 PRINT "PRESENT VELOCITY = "V1" NO. OF GALLONS = "A1
153 PRINT "NO. OF MILES = "M1" TIME PASSED = "T1" SECONDS"
154 IF M1>=5 THEN 1460
155 PRINT "WHAT IS YOUR NEW RATE OF GAS "
156 INPUT G
157 IF G<-10 THEN 700
158 IF G>10 THEN 700
159 GO TO 720
160 PRINT "NOT VALID. NEW RATE "
161 GO TO 660
162 IF G<9 THEN 780
163 LET Z=Z+1
164 IF Z>4 THEN 760
165 GO TO 790
166 PRINT "YOUR ENGINE BLEW. YOU GOT HIT BY A PISTON."
167 GO TO 1270
168 LET Z=0
169 LET V=INT(B*G-M*V+V)
170 LET T=T+10
171 PRINT
172 PRINT "ROAD CONDITIONS "
173 IF V>0 THEN 850
174 LET V=0
175 LET M1=M1+V/460
176 IF G<0 THEN 890
177 LET A1=A1-(G*S)/5000
178 IF A1<0 THEN 1380
179 IF R1=1 THEN 1050
180 IF Q1=1 THEN 980
181 LET Q=INT((C2+1)*RND(X))
182 LET R=INT((3.75-C2)*RND(X))
183 IF R>0 THEN 1290
184 IF Q>0 THEN 1340
185 PRINT "CLEAR AND STRAIGHT"
186 PRINT
187 GO TO 620
188 LET H=INT(15+35.*RND(X))
189 LET H=H+5*C1
190 IF V>H THEN 1500
191 PRINT "THROUGH CURVE"
192 PRINT
193 LET Q1=0
194 GO TO 620
195 LET E=E-(V-D)*3.0
196 IF E<0 THEN 1100
197 PRINT "VEHICLE "E1" FEET AHEAD"
198 PRINT
199 GO TO 620
200 IF V-D<5 THEN 1180
201 PRINT "VEHICLE PASSED BY "
202 LET D=V-D
203 PRINT D
204 PRINT " MPH"
205 PRINT
206 LET R1=0
207 GO TO 620
208 PRINT "VEHICLE BEING PASSED "
209 LET D=INT(25+40.*RND(X))
210 PRINT "GRAYHOUND BUS IN OTHER LANE "
211 PRINT "DOING "
212 PRINT D
213 PRINT " MPH "
214 LET D=V+D
215 PRINT "CRASH VELOCITY = "
216 PRINT D
217 PRINT "WHERE IS YOUR FUNERAL BEING HELD ?"
218 GO TO 1560

```

ROADRACE

LISTING

SAMPLE RUN →

HARD ACCELERATION →

```

1290 PRINT "VEHICLE AHEAD 1000 FEET"
1300 PRINT
1310 LET D=INT(25+35.*RND(X))
1320 LET R1=1
1330 GO TO 620
1340 PRINT "WARNING: CURVE AHEAD "
1350 LET Q1=1
1360 PRINT
1370 GO TO 620
1380 PRINT "EXCELLENT BUT WAIT!"
1390 PRINT
1400 PRINT "YOU RAN OUT OF GAS"
1410 GO TO 1550
1420 PRINT "BUT SOME HOW YOU MADE IT"
1430 PRINT
1440 LET R1=0
1450 GO TO 620
1460 PRINT
1470 PRINT
1480 PRINT "YOU MADE IT (LUCKY) !!!!!!"
1490 GO TO 1560
1500 PRINT "ARE TERRIBLE"
1510 LET H=H+5*C1
1520 PRINT H1" WAS THE SPEED THROUGH THE CURVE"
1530 PRINT V1" WAS YOUR SPEED. BY THE WAY "
1540 GO TO 1270
1550 PRINT "YOU LEAD FOOTED ***$**$**"
1560 PRINT "YOU WANT TO TRY AGAIN, RIGHT !!!!!"
1570 PRINT "1-YES, 2-NO "
1580 INPUT V
1590 IF V=2 THEN 1620
1600 N2=1
1610 GO TO 1640
1620 PRINT "CHICKEN"
1630 GO TO 1700
1640 RESTORE
1650 GO TO 220
1660 DATA 40,.5,10
1670 DATA 60,.5,13
1680 DATA 70,.41,15
1690 DATA 80,.39,18
1700 END

```

WELCOME TO THE FIRST ANNUAL PITTSFIELD-TO-ALBANY ROAD RALLY.  
YOU'LL BE DRIVING DOWN RT. 20, TRYING TO WIN THE RACE AND  
STAY ALIVE IN THE BARGAIN. GOOD LUCK!!

YOU HAVE YOUR CHOICE OF: (1) A VW (2) 283 NOVA  
(3) Z-28 OR (4) FERRARI

CHOOSE THE CAR YOU WANT BY THE NUMBER IN FRONT OF IT.  
REMEMBER, THE BETTER THE CAR THE MORE GAS IT USES.  
WHICH CAR ?

YOU NOW CHOOSE WHICH COURSE YOU WANT TO RACE ON.  
THE EASIEST COURSE IS NUMBER 1, AND IS THE STRAIGHTEST  
ROUTE. NUMBER 5 CONSISTS MOSTLY OF TURNS AND TWISTS.  
WHICH COURSE DO YOU WANT (1 TO 5) ?

YOU WILL NEED TO TRAVEL 5 MILES WITH .5 GALLONS OF GAS  
YOUR STATUS WILL BE SHOWN EACH 10 SECONDS. AFTER EACH STATUS  
CHECK YOU WILL BE ASKED FOR A NEW RATE OF GAS. A RATE OF  
+10 IS HARD ACCELERATION, AND -10 IS HARD BRAKING. ANY NUMBER  
IN BETWEEN IS ALLOWABLE.

PRESENT VELOCITY = 0 NO. OF GALLONS = .5  
NO. OF MILES = 0 TIME PASSED = 0 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : WARNING: CURVE AHEAD

PRESENT VELOCITY = 45 NO. OF GALLONS = .48  
NO. OF MILES = .0978261 TIME PASSED = 10 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : THROUGH CURVE

PRESENT VELOCITY = 30 NO. OF GALLONS = .476  
NO. OF MILES = .1630435 TIME PASSED = 20 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : CLEAR AND STRAIGHT

PRESENT VELOCITY = 50 NO. OF GALLONS = .46  
NO. OF MILES = .2717391 TIME PASSED = 30 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : VEHICLE AHEAD 1000 FEET

PRESENT VELOCITY = 68 NO. OF GALLONS = .44  
NO. OF MILES = .4195652 TIME PASSED = 40 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : VEHICLE PASSED BY 6 MPH

PRESENT VELOCITY = 49 NO. OF GALLONS = .432  
NO. OF MILES = .5260869 TIME PASSED = 50 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : VEHICLE AHEAD 1000 FEET

PRESENT VELOCITY = 68 NO. OF GALLONS = .412  
NO. OF MILES = .673913 TIME PASSED = 60 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : VEHICLE PASSED BY 22 MPH

PRESENT VELOCITY = 54 NO. OF GALLONS = .402  
NO. OF MILES = .7913043 TIME PASSED = 70 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : WARNING: CURVE AHEAD

PRESENT VELOCITY = 70 NO. OF GALLONS = .382  
NO. OF MILES = .9434782 TIME PASSED = 80 SECONDS  
WHAT IS YOUR NEW RATE OF GAS ?

ROAD CONDITIONS : ARE TERRIBLE  
39 WAS THE SPEED THROUGH THE CURVE  
50 WAS YOUR SPEED. BY THE WAY WHERE IS YOUR FUNERAL BEING HELD ?

← SLOW DOWN FOR CURVE

← DIDN'T SLOW ENOUGH FOR CURVE