

IME PROJEKTA : VRETE

PODROČJE : SPOLNAVANJE NARAVE (1); GEOGRAFIJA (2)

4. RAZRED OS

1. RAZRED SVI

DELOVNI NASLOV : "VRETE"

UČNA ENOTA : VREMENSKI POJAVI (1); VLOGA PODNEBNIH ELEMENTOV (2)

TEMA: GIBANJE ZRAKA
PADAVINE

(SEVANJE, TEMPERATURA) (1)

GIBANJE ZRAKA (2)

(SEVANJE, TEMPERATURA, PADAVINE)

//

//

LOKALNO

GLOBALNO

RAZGLAVITEV : - GIBANJE ZRAKA : vrst, način, posledice

- PADAVINE : vrst, način (Aipi)

} (1)

① KJE GA SLEDUJEMO (ZAKAJ) (ZAJEBANCIJA), 2 tabeli

① OPIS DELAV IN DELOVANJA

② DIALOG { ZACETEK DELOVANJA, SVEŽKA, KOLIČINA GORIVA, MOŽNE NAPAKE
~~OVANJA~~, TEST FAZ

③ SKOKI PO FAZAH

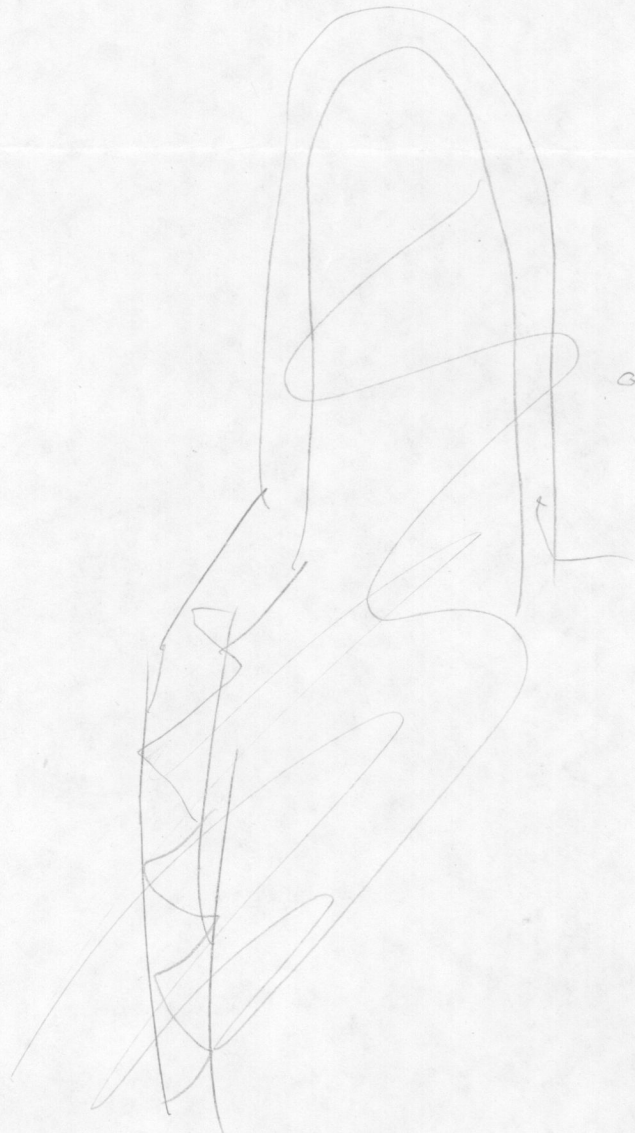
SCENARIJ

IZBOLJŠAVE

- URTENSJE KROGA (OSI)

- BARVE !

- DEBELEJŠE CRTE



TWO-STROKE ENGINE



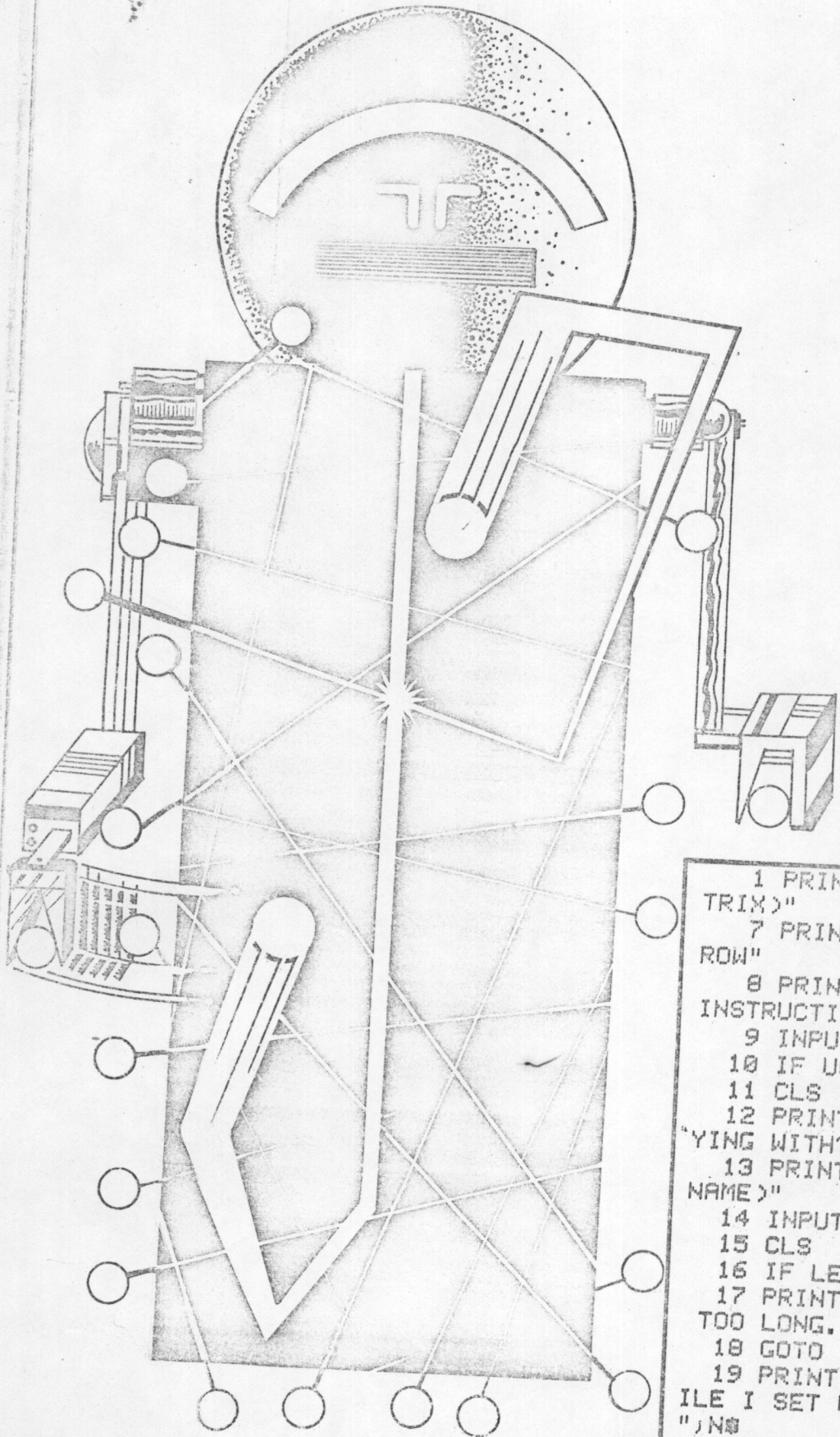
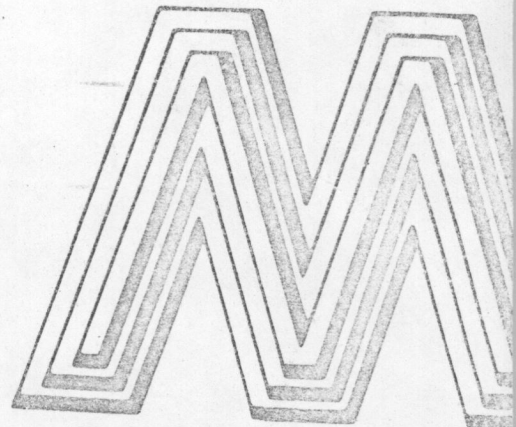
THIS EDUCATIONAL program, **Two-stroke Engine**, was designed for the 16K Spectrum by Tim Rose of Woolwich, London. For those interested in simple physics it describes, with working diagrams, the action of a two-stroke engine. It would be useful as a demonstration program for teaching, or for students struggling to reproduce diagrams.

```

10 GO SUB 240: BORDER 0: PAPER
0: INK 5: CL5
20 CIRCLE 125,39,24
30 PRINT AT 20,0:"Two Stroke"
"Engine by Tim Rose 10/2/1983"
40 PLOT 102,100: DRAW 0,-50: D
RAW -12,-15: DRAW 0,-50: DRAW 70
,0,PI: DRAW 0,30: DRAW -8,5: DRA
W 15,0: PLOT PEEK 23677,PEEK 236
78+12
50 DRAW -15,0: DRAW 0,4: DRAW
15,0: PLOT PEEK 23677,PEEK 23678
+12: DRAW -15,0: DRAW 0,53: DRAW
-50,0,2: PLOT 100,90: DRAW 0,-3
5: DRAW -1,0: DRAW 0,35
60 PRINT AT 0,14: INK 7: BRIGHT
1:"a"
70 FOR z=(2*PI)-PI/6 TO 0 STEP
-PI/6
80 FOR z=0 TO 1
90 LET b=126+30*CO5 z: LET c=3
9+20*SIN z
100 PLOT OVER 1:b,c: DRAW OVER
1:126-b,45
110 LET d=c+45
120 OVER 1: PLOT 105,d: DRAW 44
,9: DRAW 0,20: DRAW -32,10: DRAW
-13,-10: DRAW 0,-20: OVER 0
130 IF INT c=59 THEN GO SUB 021
0
140 IF INT c=56 AND b>126 THEN
PRINT AT 0,0:"Power" :AT 1,
14:"" :AT 2,13:"" :AT 3,
13:""
150 IF INT c=21 AND b>126 THEN
GO SUB 0290
160 IF INT c=38 AND b<126 THEN
PRINT AT 0,0:"Compression"
170 IF INT c=48 AND INT b<126 T
HEN GO SUB 0280
180 IF (INKEY#="c" OR INKEY#="C
") AND z=0 THEN COPY
190 IF (INKEY#="s" OR INKEY#="S
") AND z=0 THEN GO TO 190
200 NEXT z: NEXT a: GO TO 70
210 PRINT AT 0,0:"Ignition"
:AT 1,14: INK 2: BRIGHT 1:"bbbb"
:AT 2,13:"bbbbbb":AT 2,13:"bbbbbb
":AT 3,13:"bbbbbb": IF z=0 THEN
FOR x=0 TO 10: BEEP 0,01,10: BE
EP 0,01,20: NEXT x
220 RETURN
230 PRINT AT 0,0:"" : OVE
R 1: PLOT 134,122: DRAW 20,-20,P
1/2: PLOT 155,102: DRAW 16,0: PL
OT 166,106: DRAW 5,-4: DRAW -5,-
4: PRINT AT 9,22:"Exhaust":AT 10
,24:"Out"
240 PRINT AT 9,0:"Fuel forced":
AT 10,5:"up": PLOT 96,40: DRAW 0
,55: DRAW 20,22: DRAW -5,0: POKE
23677,PEEK 23677+5: DRAW 0,-5:
OVER 0
250 IF z=0 THEN FOR x=1 TO 100:
IF INKEY#="c" OR INKEY#="C" THE
N COPY
260 IF z=0 THEN NEXT x
270 RETURN
280 OVER 1: PLOT 160,85: DRAW -
12,0: DRAW -5,-20: DRAW -4,5: PO
KE 23677,PEEK 23677+11: DRAW -6,
-5: PRINT AT 11,21:"Fuel sucked"
:AT 12,25:"in": OVER 0: GO TO 25
0
290 RESTORE 300: FOR x=0 TO 14:
READ y: POKE USR "3"+x,y: NEXT
x: RETURN
300 DATA BIN 00001110,BIN 00001
110,BIN 00011111,BIN 0001111,32
,BIN 1100110,BIN 00100100,BIN 0
0012100,BIN 00101010,0,BIN 10
001010,BIN 0101010,0,BIN 000010
0,0
310 SAVE "2 Stroke" LINE 1

```

14,14,31,31,32,206,4,12,90,0,169,0,
74,0,36,0



MATRIX is one of those rare but excellent routines in which the computer answers back. It is a game of strategy requiring you to move a flashing cursor across a matrix of numbers, collecting the highest available values by hitting the 0 key.

The restrictions are that you can move only horizontally and that you must avoid giving the computer, which moves vertically, any access to the high numbers. The winner is the player with the highest score when more moves are impossible. Instructions and prompts are contained within the game and a running score is kept.

The computer plays very well, obviously in its element with the requisite number-crunching, and in our tests it managed to win more often than not.

An interesting and original listing from T J Marrow of Wirral, Merseyside.

In our listing, lower-case letters signify inverse video except when inside brackets, when they are graphic instructions. (16K ZX-81)

```

1 PRINT AT 10,10;"(inverse MA
TRIX)"
7 PRINT AT 17,8);"BY JAMES MAR
ROW"
8 PRINT AT 20,4);"DO YOU WANT
INSTRUCTIONS?"
9 INPUT U$
10 IF U$(1)="Y" THEN GOTO 2000
11 CLS
12 PRINT AT 10,5);"WHO AM I PLA
"YING WITH?"
13 PRINT AT 13,7);"(INPUT YOUR
NAME)"
14 INPUT N$
15 CLS
16 IF LEN N$(9) THEN GOTO 19
17 PRINT AT 13,3);"YOUR NAME IS
TOO LONG."
18 GOTO 14
19 PRINT AT 10,2);"EXCUSE ME WH
ILE I SET UP",TAB 6;"THE BOARD,
",N$
20 REM shuffle board pieces
21 LET LP=0
    
```

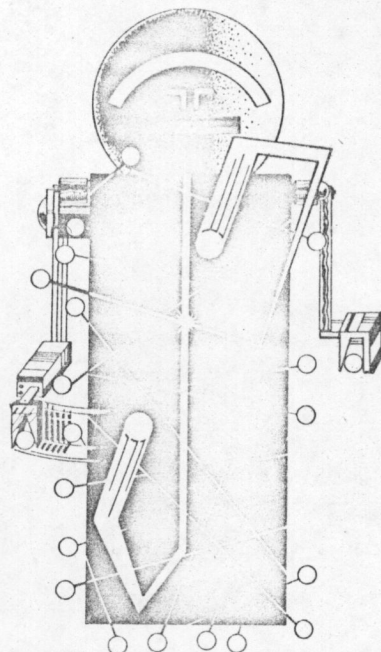
ATRIX

```
22 LET MO=2
25 DIM B$(8,16)
30 LET A$="*151009090908080807
07070606060505050404040303030202
020101010000000000-1-1-1-2-2-2-3
-3-3-4-4-4-5-5-5-6-6-6-7-7-7-8-8
-8-9-9-9-900  "
40 FOR N=1 TO 8
50 FOR M=1 TO 8
60 LET A=INT ((RND*(LEN A$-1)
/2))+1)*2
70 LET B$(N,M*2-1 TO M*2)=A$(A
TO A+1)
80 IF A$(A TO A+1)="  " THEN G
OSUB 1500
90 LET A$=A$(1 TO A-1)+A$(A+2
TO LEN A$)
100 NEXT M
110 NEXT N
120 REM  score variables
130 LET S=0
140 LET T=0
160 GOSUB 700
170 REM  Players move
175 GOSUB 3000
180 PRINT AT 2*Y,1+(X-1)*3;"(tw
o inverse 'ASTERISKS)"
190 PRINT AT 2*Y,1+(X-1)*3;B$(Y
,2*X-1 TO 2*X)
200 IF INKEY$="" THEN GOTO 180
210 LET A$=INKEY$
213 IF A$="U" THEN GOTO 920
215 IF A$(">"8" AND A$(">"5" AND
A$(">"0" THEN GOTO 180
219 IF A$="0" AND B$(Y,2*X-1 TO
2*X)="  " THEN GOTO 180
220 IF A$="0" THEN GOTO 270
230 LET X=X+(A$="8")-(A$="5")
240 IF X>8 THEN LET X=1
250 IF X<1 THEN LET X=8
260 IF B$(Y,2*X-1)="  " THEN GOT
O 230
265 GOTO 180
270 LET LP=VAL B$(Y,2*X-1 TO 2*
X)
275 PRINT AT 2*Y,1+(X-1)*3;"  "
280 LET S=S+LP
290 LET MO=1
295 LET B$(Y,2*X-1 TO 2*X)="  "
297 GOSUB 765
300 REM  computers move
301 GOSUB 4000
305 DIM R(8)
310 FOR N=1 TO 8
315 LET V=-100
325 IF N=Y THEN GOTO 430
330 IF B$(N,2*X-1 TO 2*X(">)"  "
THEN GOTO 360
340 LET W=-100
345 IF N=Y THEN GOTO 420
350 GOTO 370
360 LET W=VAL B$(N,2*X-1 TO 2*X
)
370 FOR M=1 TO 8
370 FOR M=1 TO 8
380 IF M=X THEN GOTO 410
390 IF B$(N,M*2-1 TO M*2)="  "
THEN GOTO 410
395 IF VAL B$(N,M*2-1 TO M*2)<V
THEN GOTO 410
400 LET V=VAL B$(N,M*2-1 TO M*2
)
410 NEXT M
420 LET R(N)=W-V
430 NEXT N
440 LET V=-100
450 FOR N=1 TO 8
460 IF B$(N,2*X-1 TO 2*X)="  "
THEN GOTO 489
470 IF R(N)<V THEN GOTO 489
475 LET V=R(N)
480 LET Y=N
489 NEXT N
490 LET LP=VAL B$(Y,2*X-1 TO 2*
X)
500 LET T=T+LP
505 PRINT AT Y*2,1+(X-1)*3;"  "
510 LET B$(Y,2*X-1 TO 2*X)="  "
520 LET MO=2
530 GOSUB 765
540 GOTO 170
699 REM  draw board
700 CLS
701 PRINT AT 0,0;"(nine inverse
SPACES;inverse MATRIX;ten inver
se SPACES)"
705 FOR N=1 TO 8
710 PRINT AT (2*N)-1,0;"(twenty
```

```

five inverse SPACES)"
720 FOR M=1 TO 8
730 PRINT AT 2*N,(M-1)*3;"(inve
rse SPACE)";B$(N,2*M-1 TO 2*M)
740 NEXT M
745 PRINT AT 2*N,24;"(inverse S
PACE)"
750 NEXT N
760 PRINT AT 17,0;"(twenty five
inverse SPACES)"
770 PRINT AT 19,2;N$;" : ";S;"
"
780 PRINT AT 21,2;"ZX81 : ";T;"
"
790 PRINT AT 19,15;"LAST PIECE
";LP;" "
795 PRINT AT 21,14;"
"
800 IF M0=1 THEN PRINT AT 21,14
;"MY TURN"
810 IF M0=2 THEN PRINT AT 21,14
;"YOUR TURN,";N$
820 RETURN
910 REM game over
920 CLS
925 PRINT AT 4,8;"(thirteen inv
erse ASTERISKs)"
930 PRINT AT 5,8;"(inverse ASTE
RISK SPACE GAME OVER SPACE ASTER
ISK)"
935 PRINT AT 6,8;"(thirteen inv
erse ASTERISKs)"
940 PRINT AT 9,7;"MY SCORE IS "
;T
950 PRINT AT 11,2;"YOUR SCORE,"
;N$;" IS ";S
955 PRINT AT 13,7;"PRESS ANY KE
Y"
960 IF S<>T THEN GOTO 1000
970 PRINT AT 17,6;"(inverse DRA
W)"
990 IF INKEY$="" THEN GOTO 990
995 GOTO 1200
1000 IF S>T THEN GOTO 1050
1010 PRINT AT 17,9;"(inverse I W
ON)"
1020 IF INKEY$="" THEN GOTO 1020
1030 GOTO 1200
1055 PRINT AT 17,6;"(inverse YOU
WON)"
1070 IF INKEY$="" THEN GOTO 1070
1200 CLS
1210 PRINT AT 10,3;"DO YOU WANT
ANOTHER GAME?"
1220 INPUT U$
1230 CLS
1240 IF U$(1)="Y" THEN RUN
1250 PRINT AT 10,11;"THANK YOU"
1260 STOP
1500 LET Y=N
1510 LET X=M
1520 RETURN
2000 CLS
2001 PRINT AT 1,12;"(inverse MAT
RIX)";TAB 11;"-----"

```



```

2005 PRINT AT 4,1;"YOUR AIM IS T
O GAIN MORE POINTS"
2010 PRINT "THAN THE COMPUTER. W
HEN IT IS"
2015 PRINT AT 6,0;"YOUR TURN, YO
U MOVE THE ""(two inverse ASTERI
SKS)"" WITH"
2020 PRINT "THE ""8"" AND ""5""
KEYS UNTIL IT IS"
2025 PRINT "OVER THE PIECE YOU W
ANT, THEN"
2030 PRINT AT 9,0;"YOU PRESS ""0
"" TO TAKE IT."
2035 PRINT "PRESS ""U"" TO STOP
THE GAME."
2040 PRINT AT 12,1;"THE COMPUTER
MOVES VERTICALLY,"
2050 PRINT " AND YOU MOVE HORIZ
ONTALLY."
2055 PRINT AT 18,5;"WHO AM I PLA
YING WITH?"
2060 PRINT AT 20,7;"(INPUT YOUR
NAME)"
2070 INPUT N$
2075 CLS
2080 IF LEN N$<9 THEN GOTO 19
2090 PRINT AT 13,7;"YOUR NAME IS
TOO LONG"
2100 GOTO 2070
2999 REM is game over!
3000 IF B$(Y)="(sixteen SPACES)"
THEN GOTO 920
3010 RETURN
4000 LET C$=""
4005 FOR N=1 TO 8
4010 LET C$=C$+B$(N,X*2-1 TO X*2
)
4020 NEXT N
4030 IF C$="(sixteen SPACES)" TH
EN GOTO 920
4040 RETURN
5000 REM MATRIX
5010 SAVE "MATRIX"
5020 RUN

```