

\$2.95

Mini Golf

Printed Game Software for Atari®, TRS-80®, Apple®, IBM® PC.



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6 South Street, Milford, NH 03055.

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Mini Golf



by Mitch Voth

Apple® translation by Steve Justus and Kerry Shetline

Atari® translation by Rich Bouchard

IBM® PC translation by Kerry Shetline

Minigolf is a graphic simulation of miniature golf for the Apple II family of computers, Atari 400/800/1200, TRS-80® Model I or III, or IBM PC with at least 16K RAM.

Remember the golden days of youthful summers, when you and the gang went to the miniature golf course? Does it seem too long ago? Now you can relive those halcyon times, right on your computer. You can invite the old gang over, too, because up to ten people can play.

Instructions

First, tell the computer how many people will be playing. The computer then asks you for their names. After that, just play nine holes of relaxing *Minigolf*.

On the Atari, Apple, and TRS-80, the left- and right-arrow keys position your "putter." The IBM version uses the period and comma keys. (They have the directional brackets on them.) When you think you have the angle right, press one of the number keys from 1 to 9. Use 9 to deliver a powerful swipe at the ball, and send it bounding about the course. The force of your swing declines gradually down to 1, which represents a light tap.

Players putt each hole in its entirety before the next one tees off. After each hole, the scorecard appears.

See you at the course!

Variables

Apple Version

A: General purpose.
 B1, B2: Position of ball.
 C1, C2, D1, D2: Variables used for moving ball.
 CP: Direction that the ball was hit.
 CS, AP: Location of hole.
 EF: Flag — 1 means display scores during game, 0 means display final scores.
 HH: Force with which the ball was hit.
 HM: Horizontal movement.
 I: Loop variable.
 LF: Status of screen to the left and front of the ball in relation to its direction of travel (0 = green, 1 = wall).
 LS: Status at the left side of the ball.
 M1, M2: Horizontal and vertical velocity.
 N1, N2: Simplified horizontal and vertical velocity.
 NP: Number of players.
 OC: Color of spot plotted over by the cursor.
 P: Par for each hole.
 PT: Current player number.
 Q1, Q2: Type of diagonal movement.
 RC: Flag — 1 indicates ball still in play; 0 means ball has reached hole.
 RF: Status of screen to the right and front of the ball.
 RS: Status at the right side of the ball.
 S: Number of strokes taken at each hole.
 S(*): Scores for all players.
 SN: Memory location for clicking the Apple's speaker.
 T: Number of bounces.
 VM: Vertical movement.
 X, Y: Loop variables.
 ZS(*): Names of players.
 Z1\$: Player's move.

IBM PC Version

A: General purpose.
 B1, B2: Position of ball.
 C1, C2, D1, D2: Variables used for moving ball.
 CP: Direction that the ball was hit.
 CS, AP: Location of hole.
 EF: Flag — 1 means display scores during game; 0 means display final scores.
 HH: Force with which the ball was hit.
 HM: Horizontal movement.
 I: Loop variable.
 LF: Status of screen to the left and front of the ball in relation to its direction of travel (0 = green, 1 = wall).
 LS: Status at the left side of the ball.
 M1, M2: Horizontal end vertical velocity.
 N1, N2: Simplified horizontal and vertical velocity.
 NP: Number of players.
 OC: Color of spot plotted over by the cursor.
 P: Par for each hole.
 PL: Position for plotting vertical or horizontal walls.
 PT: Current player number.
 Q1, Q2: Type of diagonal movement.
 RC: Flag — 1 indicates ball still in play, 0 means ball has reached hole.
 RF: Status of screen to the right and front of the ball.
 RS: Status at the right side of the ball.
 S: Number of strokes taken at each hole.
 S(*): Scores for all players.
 T: Number of bounces.
 VM: Vertical movement.
 X, Y: Loop variables.
 XX, YY: Coordinates for graphics routines.
 ZS(*): Names of players.
 Z1\$: Player's move.



```

SS SS SS SS SS SS SS SS SS SS SS
SS                                     SS
SS   Applesoft BASIC                 SS
SS   'Minigolf'                      SS
SS   Author: Mitch Voth              SS
SS Translators: Steve Justus         SS
SS   Kerry Shetline                  SS
SS   Copyright (c) 1983               SS
SS SoftSide Publications, Inc         SS
SS                                     SS
SS SS SS SS SS SS SS SS SS SS SS

```

If you don't wish to type this program, it is available on issue #40 SoftSide DV.

Initialization.

```

100 DIM Z$(10): DIM S(10): SN = 4
    9200
110 TEXT : HOME : VTAB 5: PRINT
    "APPLE NINE HOLE MINIATURE G
   OLF"

```

Get number of players and their names.

```

120 VTAB 7: CALL - 950: INPUT "
NUMBER OF PLAYERS? ";NP:NP =
    INT (NP): IF NP < 1 OR NP >
    10 THEN 120
130 PRINT : PRINT : FOR A = 1 TO
    NP: PRINT "PLAYER #";A;: INPUT
    "? ";Z$(A): NEXT A: HOME : GOTO
    710

```

Display scores.

```

140 EF = 1: TEXT : HOME : VTAB 4:
    PRINT "SCORE" CHR$(83) * (N
    P > 1))
150 FOR A = 1 TO 11 - 6 * EF + (
    NP > 1): PRINT "-";: NEXT A:
    PRINT

```

```

160 FOR A = 1 TO NP: PRINT Z$(A)
    ;: IF S(A) = 0 THEN PRINT TAB(
    20)"PAR": GOTO 190
170 PRINT TAB(20); ABS (S(A));
    ;: IF S(A) < 0 THEN PRINT "
    UNDER PAR": GOTO 190
180 PRINT " OVER PAR"
190 NEXT A: IF EF THEN FOR A =
    1 TO 4500: NEXT A: GR : COLOR=
    4: FOR I = 0 TO 39: HLIN 0,3
    9 AT I: NEXT I
200 RETURN

```

Get angle and force from keyboard.

```

210 POKE 49168,0: GET Z1$: IF VAL
    (Z1$) = 0 THEN 230
220 HH = VAL (Z1$) * 13: HM = 0: V
    M = 0: COLOR= 0C: PLOT C1,C2
    : GOTO 490
230 T = 0: IF ASC (Z1$) < > 8 THEN
    260
240 CP = CP + 1: IF CP = 17 THEN
    CP = 1
250 GOTO 280
260 IF ASC (Z1$) < > 21 THEN 2
    10
270 CP = CP - 1: IF CP = 0 THEN C
    P = 16
280 COLOR= 0C: PLOT C1,C2: GOTO
    300
290 COLOR= 14: PLOT CS,AP: COLOR=
    15: PLOT B1,B2: 0C:= SCRN( C
    1,C2): COLOR= 6: PLOT C1,C2:
    GOTO 210

```

Routine to alter ball or putter position.

```

300 ON CP GOTO 310,320,330,340,3
    50,360,370,380,390,400,410,4
    20,430,440,450,460

```

```

310 C1 = B1: C2 = B2 + 2: M1 = 0: M2
    = - 1: GOTO 290
320 C1 = B1 + 1: M1 = - .5: GOTO
    290
330 C1 = B1 + 2: C2 = B2 + 2: M1 =
    - 1: M2 = - 1: GOTO 290
340 C2 = B2 + 1: M2 = - .5: GOTO
    290
350 C2 = B2: M2 = 0: GOTO 290
360 C2 = B2 - 1: M2 = .5: GOTO 290
370 C1 = B1 + 2: C2 = B2 - 2: M1 =
    - 1: M2 = 1: GOTO 290
380 C1 = B1 + 1: M1 = - .5: GOTO
    290
390 C1 = B1: M1 = 0: GOTO 290
400 C1 = B1 - 1: M1 = .5: GOTO 290
410 C1 = B1 - 2: C2 = B2 - 2: M1 =
    1: M2 = 1: GOTO 290
420 C2 = B2 - 1: M2 = .5: GOTO 290
430 C2 = B2: M2 = 0: GOTO 290
440 C2 = B2 + 1: M2 = - .5: GOTO
    290
450 C1 = B1 - 2: C2 = B2 + 2: M1 =
    1: M2 = - 1: GOTO 290
460 C1 = B1 - 1: M1 = .5: GOTO 290

```

Hole-in-one routine.

```

470 IF S = 1 THEN PRINT : PRINT
    CHR$(7); CHR$(7); CHR$(7)
    ); CHR$(7): PRINT "A HOLE I
    N ONE!!!": PRINT : PRINT : FOR
    A = 1 TO 2000: NEXT A: RETURN
480 PRINT "THAT TOOK YOU ";S;" S
    TROKES": PRINT : PRINT : FOR
    A = 1 TO 2000: NEXT A: RETURN

```

Move ball.

```

490 D1 = B1: D2 = B2: COLOR= 4: PLOT
    B1,B2: IF ( ABS (M1) = .5 AND
    HM = 1) OR ABS (M1) = 1 THEN
    D1 = B1 + SGN (M1): HM = 0: GOTO
    510
500 HM = 1
510 T = T + 1: IF T > 4 THEN RC =
    1: RETURN
520 IF SCRN( D1,B2) = 15 THEN 6
    10
530 COLOR= 15: PLOT D1,B2: B1 = D
    1: IF SCRN( D1,B2) = SCRN(
    CS,AP) THEN S(PT) = S(PT) +
    S - P: RC = 0: GOSUB 470: RETURN
540 COLOR= 4: PLOT B1,B2: IF ( ABS
    (M2) = .5 AND VM = 1) OR ABS
    (M2) = 1 THEN 560
550 VM = 1: GOTO 570
560 D2 = B2 + SGN (M2): VM = 0
570 IF SCRN( B1,D2) = 15 THEN 6
    10
580 COLOR= 15: PLOT B1,D2: B2 = D
    2: IF SCRN( B1,B2) = SCRN(
    CS,AP) THEN S(PT) = S(PT) +
    S - P: RC = 0: GOSUB 470: RETURN
590 T = 0: HM = HM - 1: IF HM < 0 THEN
    RC = 1: RETURN
600 GOTO 490

```



```

1030 VLIN 35,20 AT 20: HLIN 20,3
      0 AT 20
1040 P = 3:CS = 28:AP = 28: COLOR=
      13: PLOT CS,AP: FOR PT = 1 TO
      NP: HOME : PRINT "HOLE #7
      PAR 3": PRINT :S = 1: PRINT
      Z$(PT);"S TURN":B1 = INT (
      RND (1) * 6) + 11:B2 = 33: COLOR=
      15: PLOT B1,B2:CP = 1: GOSUB 300
1050 IF RC THEN S = S + 1:CP = 1
      : GOSUB 300: GOTO 1050
1060 NEXT PT
      Hole #8.
1070 GOSUB 140: COLOR= 15: HLIN
      15,25 AT 38: VLIN 38,25 AT 2
      5:Y = 25: FOR X = 25 TO 30:Y
      = Y - 1: PLOT X,Y: NEXT X: VLIN
      19,10 AT 30:Y = 10: FOR X =
      30 TO 25 STEP - 1:Y = Y - 1
      : PLOT X,Y: NEXT X: HLIN 25,
      15 AT 4
1080 Y = 4: FOR X = 14 TO 10 STEP
      - 1:Y = Y + 1: PLOT X,Y: NEXT
      X: VLIN 10,19 AT 10:Y = 18: FOR
      X = 10 TO 15:Y = Y + 1: PLOT
      X,Y: NEXT X: VLIN 24,38 AT 15
1090 VLIN 11,19 AT 15:Y = 19: FOR
      X = 16 TO 20:Y = Y + 1: PLOT
      X,Y: NEXT X:Y = 24: FOR X =
      21 TO 25:Y = Y - 1: PLOT X,Y
      : NEXT X: VLIN 19,11 AT 25
1100 P = 3:CS = 20:AP = 20: COLOR=
      13: PLOT CS,AP: FOR PT = 1 TO
      NP: HOME : PRINT "HOLE #8
      PAR 3": PRINT :S = 1: PRINT
      Z$(PT);"S TURN":B1 = INT (
      RND (1) * 7) + 16:B2 = 35: COLOR=
      15: PLOT B1,B2:CP = 1: GOSUB 300
1110 IF RC THEN S = S + 1:CP = 1
      : GOSUB 300: GOTO 1110
1120 NEXT PT
      Hole #9.
1130 GOSUB 140: COLOR= 15: HLIN
      15,25 AT 38: VLIN 38,24 AT 2
      5: HLIN 25,35 AT 24: VLIN 24
      ,2 AT 35: HLIN 35,5 AT 2: VLIN
      2,24 AT 5: HLIN 5,15 AT 24: VLIN
      24,38 AT 15

```

```

1140 Y = 14: FOR X = 15 TO 20:Y =
      Y + 1: PLOT X,Y: NEXT X:Y =
      21: FOR X = 23 TO 28:Y = Y -
      1: PLOT X,Y: NEXT X:Y = 11: FOR
      X = 27 TO 22 STEP - 1:Y = Y
      - 1: PLOT X,Y: NEXT X:Y = 4
      : FOR X = 18 TO 14 STEP - 1
      :Y = Y + 1: PLOT X,Y: NEXT X
1150 P = 4:CS = 21:AP = 12: COLOR=
      13: PLOT CS,AP: FOR PT = 1 TO
      NP: HOME : PRINT "HOLE #9
      PAR 4": PRINT :S = 1: PRINT
      Z$(PT);"S TURN":B1 = INT (
      RND (1) * 7 + 16):B2 = 36: COLOR=
      15: PLOT B1,B2:CP = 1: GOSUB 300
1160 IF RC THEN S = S + 1:CP = 1
      : GOSUB 300: GOTO 1160
1170 NEXT PT

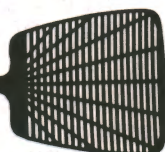
End of game.
1180 EF = 0: TEXT : HOME : VTAB 4
      : PRINT "FINAL SCORE" CHR$ (
      83 * (NP > 1)): GOSUB 150
1190 PRINT : PRINT : PRINT "DO Y
      OU WANT TO PLAY AGAIN? ";
1200 GET A$: IF A$ = "Y" THEN FOR
      A = 1 TO NP:S(A) = 0: NEXT A
      : GOTO 710
1210 IF A$ < > "N" THEN 1200
1220 HOME

```

SWAT TABLE

For APPLE® MINIGOLF

LINES	SWAT CODE	LENGTH
100 - 210	LN	455
220 - 330	WG	382
340 - 450	MU	308
460 - 570	DU	436
580 - 680	SB	540
690 - 780	WE	569
790 - 870	DM	531
880 - 950	BJ	516
960 - 1040	LT	601
1050 - 1130	GP	564
1140 - 1220	IT	438



```

SS SS SS SS SS SS SS SS SS SS SS
SS
SS PC Advanced BASIC SS
SS "Minigolf" SS
SS Author: Mitch Voth SS
SS Translator: Kerry Shetline SS
SS Copyright (c) 1983 SS
SS SoftSide Publications, Inc SS
SS
SS SS SS SS SS SS SS SS SS SS SS

```

If you don't wish to type this program, it is available on issue #40 SoftSide DV.

Initialization.

```

10 RANDOMIZE VAL (RIGHT$(TIME$,2))+VAL (
  MID$(TIME$,4,2))*100:DIM Z$(10),S(10),SC
  RNZ(39,39),BLZ(5),GRZ(5):FOR A=0 TO 5:RE
  AD BLZ(A),GRZ(A):NEXT A:DATA 16,16,4,4,-
  1009,0,-193,0,-193,0,-1009,0
20 KEY OFF:SCREEN 1,0:COLOR 10,1:CLS:LOC
  ATE 5:PRINT"IBM nine hole miniature golf
  "

```

Get number of players and their names.

```

30 LOCATE 7:LINE INPUT"Number of players
  ? ";NP:NP=INT(VAL(NP)):IF NP<1 OR NP>1
  0 THEN 30
40 PRINT:PRINT:FOR A=1 TO NP:PRINT"Playe
  r #";MID$(STR$(A),2);:LINE INPUT"? ";I$:Z
  $(A)="" :FOR X=1 TO LEN(I$):V=ASC(MID$(I$
  ,X,1)):Z$(A)=Z$(A)+CHR$(V+32*(V>96 AND V
  <123)):NEXT X,A:CLS:GOTO 600

```

Display scores.

```

50 EF=1:CLS:LOCATE 4:PRINT"Score" LEFT$(
  "S",- (NP+1))
60 PRINT STRING$(11-6*EF-(NP+1)," ")
70 FOR A=1 TO NP:PRINT Z$(A);:IF S(A)=0
  THEN PRINT TAB(20)"PAR" ELSE PRINT TAB(1
  9);ABS(S(A));:IF S(A)<0 THEN PRINT"UNDER
  PAR" ELSE PRINT"OVER PAR"

```

```

80 NEXT A:IF EF THEN FOR A=1 TO 4500:NEX
  T A:CLS
90 RETURN

```

Get angle and force from keyboard.

```

100 DEF SEG=0:POKE 1050,PEEK(1052):Z1$=I
  NPUT$(1):IF Z1$="Z" THEN 100 ELSE IF 0+V
  AL(Z1$)=0 THEN 120
110 HH=VAL(Z1$)*13:HM=0:VM=0:CLR=0C:GOSU
  B 1130:GOTO 380
120 T=0:IF ASC(Z1$)<>46 THEN 150
130 CP=CP+1:IF CP=17 THEN CP=1
140 GOTO 170
150 IF ASC(Z1$)<>44 THEN 100
160 CP=CP-1:IF CP=0 THEN CP=16
170 CLR=0C:XX=C1:YY=C2:GOSUB 1130:GOTO 1
  90
180 CLR=1:XX=CS:YY=AP:GOSUB 1130:CLR=3:S
  CRNZ(B1,B2)=3:PUT (B1*8,B2*4),BLZ,PSET:0
  C=SCRNZ(C1,C2):CLR=2:XX=C1:YY=C2:GOSUB 1
  130:GOTO 100

```

Routine to alter ball or putter position.

```

190 ON CP GOTO 200,210,220,230,240,250,2
  60,270,280,290,300,310,320,330,340,350
200 C1=B1:C2=B2+2:M1=0:M2=-1:GOTO 180
210 C1=B1+1:M1=-.5:GOTO 180
220 C1=B1+2:C2=B2+2:M1=-1:M2=-1:GOTO 180
230 C2=B2+1:M2=-.5:GOTO 180
240 C2=B2:M2=0:GOTO 180
250 C2=B2-1:M2=.5:GOTO 180
260 C1=B1+2:C2=B2-2:M1=-1:M2=1:GOTO 180
270 C1=B1+1:M1=-.5:GOTO 180
280 C1=B1:M1=0:GOTO 180
290 C1=B1-1:M1=.5:GOTO 180
300 C1=B1-2:C2=B2-2:M1=1:M2=1:GOTO 180
310 C2=B2-1:M2=.5:GOTO 180
320 C2=B2:M2=0:GOTO 180
330 C2=B2+1:M2=-.5:GOTO 180
340 C1=B1-2:C2=B2+2:M1=1:M2=-1:GOTO 180
350 C1=B1-1:M1=.5:GOTO 180

```



Hole-in-one routine.

```
360 PUT (B1*B2*4),BLZ,PSET:FOR A=1000
TO 510 STEP-35:SOUND A,.2:NEXT:SOUND 100
0,.2:GOSUB 1190:IF S=1 THEN PRINT:PRINT"
A HOLE IN ONE!!":PLAY"02 LB CCDDFD L4 G
6AF6":FOR A=1 TO 2000:NEXT A:RETURN
370 PRINT"THAT TOOK YOU"S"STROKES":PRINT
:PRINT:FOR A=1 TO 2000:NEXT A:RETURN
```

Move ball.

```
380 D1=B1:D2=B2:SCRNZ(B1,B2)=0:PUT (B1*B
,B2*4),GRZ,PSET:IF (ABS(M1)=.5 AND HM=1)
OR ABS(M1)=1 THEN D1=B1+SGN(M1):HM=0:GO
TO 400
390 HM=1
400 T=T+1:IF T>4 THEN RC=1:RETURN
410 IF SCRNX(D1,B2)=3 THEN 500
420 SCRNX(D1,B2)=3:PUT (D1*B2*4),BLZ,P
SET:B1=D1:IF SCRNX(D1,B2)=SCRNZ(CS,AP) T
HEN S(PT)=S(PT)+S-P:RC=0:GOSUB 360:RETUR
N
430 SCRNX(B1,B2)=0:PUT (B1*B2*4),GRZ,P
SET:IF (ABS(M2)=.5 AND VM=1) OR ABS(M2)=
1 THEN 450
440 VM=1:GOTO 460
450 D2=B2+SGN(M2):VM=0
460 IF SCRNX(B1,D2)=3 THEN 500
470 SCRNX(B1,D2)=3:PUT (B1*B2*4),BLZ,P
SET:B2=D2:IF SCRNX(B1,B2)=SCRNZ(CS,AP) T
HEN S(PT)=S(PT)+S-P:RC=0:GOSUB 360:RETUR
N
480 T=0:HM=HM-1:IF HM<0 THEN RC=1:RETURN
```

```
490 GOTO 380
```

Handle bounces.

```
500 SOUND 700,.2:SOUND 300,.2:HM=HM-10:I
F HM<2 AND HM>-6 THEN HM=2
510 IF M1 AND M2 THEN 550
520 LS=SCRNZ(B1+M2,B2-M1)=3:LF=SCRNZ(B1+
M1+M2,B2+M2-M1)=3:RS=SCRNZ(B1-M2,B2+M1)=
3:RF=SCRNZ(B1+M1-M2,B2+M2+M1)=3:IF LS AN
D NOT RS AND NOT LF THEN A=M1:M1=-M2:M2=
A:GOTO 380
530 IF RS AND NOT LS AND NOT RF THEN A=M
1:M1=M2:M2=-A:GOTO 380
540 M1=-M1:M2=-M2:GOTO 380
```

```
550 M1=SGN(M1):M2=SGN(M2):Q1=M1*M2>0:Q2=
NOT Q1:LS=SCRNZ(B1-Q1*M1,B2-Q2*M2)=3:RS=
SCRNZ(B1-Q2*M1,B2-Q1*M2)=3
560 IF LS AND NOT RS THEN M1=M1*Q1-M1*Q2
:M2=M2*Q2-M2*Q1:GOTO 380
570 IF RS AND NOT LS THEN M1=M1*Q2-M1*Q1
:M2=M2*Q1-M2*Q2:GOTO 380
580 A=M1:M1=-SGN(M1)*ABS(M2):M2=-SGN(M2)
*ABS(A):IF SCRNX(B1+M1,B2+M2)=3 THEN M1=
SGN(M1):M2=SGN(M2):B1=B1-M2:B2=B2-M1
590 GOTO 380
```

Hole #1.

```
600 CLR
610 CLR=3:XX=20:YY=10:PL=5:GOSUB 1140:XX
=5:YY=37:PL=20:GOSUB 1160:XX=20:YY=10:PL
=37:GOSUB 1140:XX=37:YY=5:PL=10:GOSUB 11
60:P=2:CS=15:AP=8
620 FOR PT=1 TO NP:GOSUB 1190:PRINT"HOLE
#1 PAR 2":PRINT:PRINT Z$(PT);""S TURN
":S=1:B1=INT(RND(1)*7)+13:B2=35:CLR=3:CP
=1
630 GOSUB 190
640 IF RC THEN S=S+1:CP=1:GOSUB 190:GOTO
640
650 NEXT PT:GOSUB 1200
```

Hole #2.

```
660 GOSUB 50:CLR=3:Y=12:XX=35:YY=12:PL=4
:GOSUB 1160:FOR X=4 TO 13:Y=Y-1:GOSUB 11
80:NEXT X:XX=13:YY=25:PL=2:GOSUB 1140:XX
=2:YY=16:PL=25:GOSUB 1160:XX=25:YY=14:PL
=16:GOSUB 1140:XX=16:YY=35:PL=14:GOSUB 1
160:XX=14:YY=4:PL=35:GOSUB 1140
670 P=2:CS=22:AP=10:CLR=1:FOR PT=1 TO NP
:GOSUB 1190:PRINT"HOLE #2 PAR 2":PRINT
:S=1:PRINT Z$(PT);""S TURN":B1=INT(RND(1
)*7)+5:B2=33:CLR=3:CP=1:GOSUB 190
680 IF RC THEN S=S+1:CP=1:GOSUB 190:GOTO
680
690 NEXT PT:GOSUB 1200
```

Hole #3.

```
700 GOSUB 50:CLR=3:Y=15:XX=3:YY=30:PL=35
:GOSUB 1140:XX=35:YY=15:PL=30:GOSUB 1160
:FOR X=30 TO 22 STEP-1:Y=Y-1:GOSUB 1180:
NEXT X:XX=21:YY=12:PL=6:GOSUB 1140:Y=5:F
OR X=12 TO 3 STEP-1:Y=Y+1:GOSUB 1180:NEX
T X
```

```
710 XX=35:YY=15:PL=3:GOSUB 1160:XX=35:YY
=15:PL=17:GOSUB 1160:CS=23:AP=30:CLR=1:P
=2:FOR PT=1 TO NP:GOSUB 1190:PRINT"HOLE
#3 PAR 2":PRINT:S=1:PRINT Z$(PT);""S T
URN":B1=INT(RND(1)*11)+5:B2=33:CLR=3:CP=
1:GOSUB 190
720 IF RC THEN S=S+1:CP=1:GOSUB 190:GOTO
720
730 NEXT PT:GOSUB 1200
```

Hole #4.

```
740 GOSUB 50:CLR=3:Y=11:XX=35:YY=11:PL=3
:GOSUB 1160:FOR X=3 TO 10:Y=Y-1:GOSUB 11
80:NEXT X:XX=10:YY=24:PL=3:GOSUB 1140:Y=
3:FOR X=25 TO 32:Y=Y+1:GOSUB 1180:NEXT X
:XX=12:YY=20:PL=32:GOSUB 1160
750 Y=20:FOR X=32 TO 25 STEP-1:Y=Y+1:GOS
UB 1180:NEXT X:XX=24:YY=20:PL=28:GOSUB 1
140:FOR X=19 TO 12 STEP-1:Y=Y-1:GOSUB 11
80:NEXT X:XX=3:YY=12:PL=35:GOSUB 1140
760 XX=35:YY=12:PL=12:GOSUB 1160:XX=12:Y
Y=22:PL=12:GOSUB 1140:XX=12:YY=18:PL=22:
GOSUB 1160
770 CS=17:AP=15:CLR=1:P=3:FOR PT=1 TO NP
:GOSUB 1190:PRINT"HOLE #4 PAR 3":PRINT
:S=1:PRINT Z$(PT);""S TURN":B1=INT(RND(1
)*7)+4:B2=33:CLR=3:CP=1:GOSUB 190
780 IF RC THEN S=S+1:CP=1:GOSUB 190:GOTO
780
790 NEXT PT:GOSUB 1200
```

Hole #5.

```
800 GOSUB 50:CLR=3:XX=18:YY=28:PL=35:GOS
UB 1140:XX=35:YY=10:PL=28:GOSUB 1160:Y=2
4:FOR X=28 TO 18 STEP-1:Y=Y-1:GOSUB 1180
:NEXT X:XX=35:YY=24:PL=18:GOSUB 1160
810 Y=10:FOR X=28 TO 20 STEP-1:Y=Y-1:GOS
UB 1180:NEXT X:XX=19:YY=11:PL=1:GOSUB 11
40:Y=1:FOR X=10 TO 1 STEP-1:Y=Y+1:GOSUB
1180:NEXT X:XX=11:YY=16:PL=1:GOSUB 1160
820 Y=15:FOR X=1 TO 9:Y=Y+1:GOSUB 1180:N
EXT X:XX=10:YY=18:PL=24:GOSUB 1140
830 CS=4:AP=13:CLR=1:P=2:FOR PT=1 TO NP
:GOSUB 1190:PRINT"HOLE #5 PAR 2":PRINT
:S=1:PRINT Z$(PT);""S TURN":B1=INT(RND(1
)*8)+19:B2=33:CLR=3:CP=1:GOSUB 190
840 IF RC THEN S=S+1:CP=1:GOSUB 190:GOTO
840
850 NEXT PT:GOSUB 1200
```

Hole #6.

```
860 GOSUB 50:CLR=3:XX=9:YY=26:PL=35:GOSUB
B 1140:XX=35:YY=25:PL=26:GOSUB 1160:XX=2
6:YY=32:PL=25:GOSUB 1140:Y=25:FOR X=32 T
O 38:Y=Y-1:GOSUB 1180:NEXT X:XX=18:YY=4:
PL=38:GOSUB 1160:XX=38:YY=9:PL=4:GOSUB 1
140:XX=4:YY=35:PL=9:GOSUB 1160
870 Y=32:FOR X=9 TO 21:Y=Y-1:GOSUB 1180:
NEXT X:XX=20:YY=10:PL=21:GOSUB 1160:CS=1
5:AP=20:CLR=1:P=4:FOR PT=1 TO NP:GOSUB 1
190:PRINT"HOLE #6 PAR 4":PRINT:S=1:PRI
NT Z$(PT);""S TURN"
880 B1=INT(RND(1)*15)+11:B2=33:CLR=3:CP=
1:GOSUB 190
890 IF RC THEN S=S+1:CP=1:GOSUB 190:GOTO
890
900 NEXT PT:GOSUB 1200
```

Hole #7.

```
910 GOSUB 50:CLR=3:XX=11:YY=38:PL=35:GOS
UB 1140:XX=35:YY=20:PL=38:GOSUB 1160:Y=2
0:FOR X=38 TO 21 STEP-1:Y=Y-1:GOSUB 1180
:NEXT X:XX=20:YY=10:PL=2:GOSUB 1140:Y=1:
FOR X=10 TO 2 STEP-1:Y=Y+1:GOSUB 1180:NE
XT X
920 XX=11:YY=25:PL=2:GOSUB 1160:Y=25:FOR
X=2 TO 10:Y=Y+1:GOSUB 1180:NEXT X
930 XX=35:YY=20:PL=20:GOSUB 1160:XX=20:Y
Y=30:PL=20:GOSUB 1140
940 P=3:CS=28:AP=28:CLR=1:FOR PT=1 TO NP
:GOSUB 1190:PRINT"HOLE #7 PAR 3":PRINT
:S=1:PRINT Z$(PT);""S TURN":B1=INT(RND(1
)*6)+11:B2=33:CLR=3:CP=1:GOSUB 190
950 IF RC THEN S=S+1:CP=1:GOSUB 190:GOTO
950
960 NEXT PT:GOSUB 1200
```



Hole #8.

```

970 GOSUB 50:CLR=3:XX=15:YY=25:PL=38:GOS
UB 1140:XX=38:YY=25:PL=25:GOSUB 1160:Y=2
5:FOR X=25 TO 30:Y=Y-1:GOSUB 1180:NEXT X
:XX=19:YY=10:PL=30:GOSUB 1160:Y=10:FOR X
=30 TO 25 STEP-1:Y=Y-1:GOSUB 1180:NEXT X
:XX=25:YY=15:PL=4:GOSUB 1140
980 Y=4:FOR X=14 TO 10 STEP-1:Y=Y+1:GOSU
B 1180:NEXT X:XX=10:YY=19:PL=10:GOSUB 11
60:Y=18:FOR X=10 TO 15:Y=Y+1:GOSUB 1180:
NEXT X:XX=24:YY=38:PL=15:GOSUB 1160
990 XX=11:YY=19:PL=15:GOSUB 1160:Y=19:FO
R X=16 TO 20:Y=Y+1:GOSUB 1180:NEXT X:Y=2
4:FOR X=21 TO 25:Y=Y-1:GOSUB 1180:NEXT X
:XX=19:YY=11:PL=25:GOSUB 1160
1000 P=3:CS=20:AP=20:CLR=1:FOR PT=1 TO N
P:GOSUB 1190:PRINT"HOLE #8 PAR 3":PRIN
T:S=1:PRINT Z$(PT);""S TURN":B1=INT(RND(
1)*7)+16:B2=35:CLR=3:CP=1:GOSUB 190
1010 IF RC THEN S=S+1:CP=1:GOSUB 190:GOT
O 1010
1020 NEXT PT:GOSUB 1200

```

Hole #9.

```

1030 GOSUB 50:CLR=3:XX=15:YY=25:PL=38:GO
SUB 1140:XX=38:YY=24:PL=25:GOSUB 1160:XX
=25:YY=35:PL=24:GOSUB 1140:XX=24:YY=2:PL
=35:GOSUB 1160:XX=35:YY=5:PL=2:GOSUB 114
0:XX=2:YY=24:PL=5:GOSUB 1160:XX=5:YY=15:
PL=24:GOSUB 1140:XX=24:YY=38:PL=15:GOSUB
1160
1040 Y=14:FOR X=15 TO 20:Y=Y+1:GOSUB 118
0:NEXT X:Y=21:FOR X=23 TO 28:Y=Y-1:GOSUB
1180:NEXT X:Y=11:FOR X=27 TO 22 STEP-1:
Y=Y-1:GOSUB 1180:NEXT X:Y=4:FOR X=18 TO
14 STEP-1:Y=Y+1:GOSUB 1180:NEXT X
1050 P=4:CS=21:AP=12:CLR=1:FOR PT=1 TO N
P:GOSUB 1190:PRINT"HOLE #9 PAR 4":PRIN
T:S=1:PRINT Z$(PT);""S TURN":B1=INT(RND(
1)*7)+16:B2=36:CLR=3:CP=1:GOSUB 190
1060 IF RC THEN S=S+1:CP=1:GOSUB 190:GOT
O 1060
1070 NEXT PT:GOSUB 1200

```

End of game.

```

1080 EF=0:CLS:LOCATE 4:PRINT"Final score
"LEFT$( "S",-(NP+1)):GOSUB 60
1090 PRINT:PRINT:PRINT"DO YOU WANT TO PL
AY AGAIN? (Y/N) ";

```

```

1100 I$=INPUT$(1):IF I$="Y" THEN FOR A=1
TO NP:S(A)=0:NEXT A:GOTO 600
1110 IF I$<"N" THEN 1100
1120 CLS:SCREEN 0:END

```

Routines to simulate Apple graphics.

```

1130 XX=INT(XX):YY=INT(YY):LINE (XX*8,YY
*4)-STEP(7,3),CLR,BF:SCRNZ(XX,YY)=CLR:RE
TURN
1140 IF XX>YY THEN HH=XX:XX=YY:YY=HH
1150 LINE (XX*8,PL*4)-(YY*8+7,PL*4+3),CL
R,BF:FOR SS=XX TO YY STEP SGN(YY-XX):SCR
NZ(SS,PL)=CLR:NEXT:RETURN
1160 IF XX>YY THEN HH=XX:XX=YY:YY=HH
1170 LINE (PL*8,XX*4)-(PL*8+7,YY*4+3),CL
R,BF:FOR SS=XX TO YY STEP SGN(YY-XX):SCR
NZ(PL,SS)=CLR:NEXT:RETURN
1180 X=INT(X):Y=INT(Y):LINE (X*8,Y*4)-ST
EP(7,3),CLR,BF:SCRNZ(X,Y)=CLR:RETURN
1190 FOR LC=21 TO 24:LOCATE LC,1:PRINT S
PC(39);NEXT:LOCATE 21,1:RETURN
1200 ERASE SCRNX:DIM SCRNX(39,39):RETURN

```



LINES	SWAT CODE	LENGTH
10 -	70	SL 601
80 -	190	SN 503
200 -	310	UT 353
320 -	420	WL 593
430 -	520	WL 527
530 -	610	ZQ 524
620 -	680	CG 510
690 -	740	IB 548
750 -	810	RF 620
820 -	870	LH 567
880 -	950	NU 528
960 -	1000	AS 564
1010 -	1050	DM 523
1060 -	1170	NZ 539
1180 -	1200	ZQ 135



```

SS SS SS SS SS SS SS SS SS SS
SS
SS Atari BASIC SS
SS 'Minigolf' SS
SS Author: Mitch Voth SS
SS Translator: Rich Bouchard SS
SS Copyright (c) 1983 SS
SS SoftSide Publications, Inc SS
SS SS
SS SS SS SS SS SS SS SS SS SS

```

If you don't wish to type this program, it is available on issue #40 SoftSide CV and DV.

```

10 GRAPHICS 0:POKE 752,1:?:CLOSE #1:0
PEN #1,4,0,"K"
15 DIM Z$(100),A$(30),S(10):?,"ATARI
9-HOLE ":?,"MINIATURE GOLF"
20 Z$(1)="":Z$(100)="":Z$(2)=Z$(1)
25 FOR A=1 TO 10:S(A)=0:NEXT A
30 POKE 752,1:POSITION 2,5:?"NUMBER O
F PLAYERS? ";:GET #1,NP:POKE 752,0:NP=
NP-48:IF NP<1 OR NP>9 THEN 30
32 ? CHR$(NP+48):FOR A=1 TO NP:S(NP)=0
:?"PLAYER #";A;""S NAME";:INPUT A$:IF
LEN(A$)>10 THEN A$=A$(1,10)
33 IF LEN(A$)=0 THEN A$=""
34 Z$(A$10-LEN(A$)+1,A$10)=A$:NEXT A:G
RAPHICS 5:POKE 752,1
38 POKE 708,0:POKE 712,58:GOTO 300
40 GRAPHICS 0:POKE 752,1:?" SC
DRE:":?:FOR A=1 TO NP:Z$(A$10-9,A$1
0),S(A):NEXT A
42 ? :?"HIT ANY KEY":GET #1,A:GRAPHIC
S 5:POKE 752,1:POKE 708,0:POKE 712,58:
RETURN
50 GET #1,Z:IF Z<58 AND Z>48 THEN HH=(
Z-48)*11:HM=0:VM=0:COLOR A:PLOT C1,C2:
GOTO 200
60 T=0:IF Z<43 THEN 70
62 CP=CP+1:IF CP=17 THEN CP=1
64 COLOR A:PLOT C1,C2:GOTO 100

```

```

70 IF Z<42 THEN 50
72 CP=CP-1:IF CP=0 THEN CP=16
74 COLOR A:PLOT C1,C2:GOTO 100
90 COLOR 1:PLOT HP1,HP2:PLOT HP1+1,HP2
92 COLOR 3:PLOT B1,B2:LOCATE C1,C2,A:I
F A<2 THEN COLOR 2:PLOT C1,C2:GOTO 50
94 COLOR 3:PLOT C1,C2:GOTO 50
100 GOTO CP+100
101 C1=B1:C2=B2+2:M1=0:M2=-1:GOTO 90
102 C1=B1+1:M1=-1:GOTO 90
103 C1=B1+2:C2=B2+2:M1=-2:GOTO 90
104 C2=B2+1:M2=-0.5:GOTO 90
105 C2=B2:M2=0:GOTO 90
106 C2=B2-1:M2=0.5:GOTO 90
107 C1=B1+2:C2=B2-2:M1=-2:M2=1:GOTO 90
108 C1=B1+1:M1=-1:GOTO 90
109 C1=B1:M1=0:GOTO 90
110 C1=B1-1:M1=1:GOTO 90
111 C1=B1-2:C2=B2-2:M1=2:M2=1:GOTO 90
112 C2=B2-1:M2=0.5:GOTO 90
113 C2=B2:M2=0:GOTO 90
114 C2=B2+1:M2=-0.5:GOTO 90
115 C1=B1-2:C2=B2+2:M1=2:M2=-1:GOTO 90
116 C1=B1-1:M1=1:GOTO 90
150 COLOR 3:PLOT HP1,HP2:PLOT HP1+1,HP
2:IF S>1 THEN 156
152 ? "A HOLE IN ONE!!!!!!":FOR A=1 TO
5:FOR B=1 TO 59:SETCOLOR 4,B/4+1,14:S
OUND 0,B,0,10:NEXT B:NEXT A
154 POKE 712,58:SOUND 0,0,0,0:GOTO 158
156 ? "THAT TOOK YOU ";S;" STROKES":FO
R A=1 TO 50:SOUND 0,A,10,10:NEXT A:FOR
A=49 TO 2 STEP -1
157 SOUND 0,A,10,10:NEXT A:SOUND 0,0,0
,0
158 FOR A=1 TO 700:NEXT A:?" CHR$(28):"
:?"
CHR$(28):CHR$(28):RETURN
200 D1=B1:D2=B2:COLOR 2:PLOT B1,B2:IF
(ABS(M1)=1 AND HM=1) OR ABS(M1)=2 THEN
204
202 HM=1:GOTO 210

```

```

204 D1=B1+SGN(M1):HM=0
205 T=T+1:IF T>4 THEN RC=2:RETURN
210 SOUND 0,200,10,10:SOUND 0,0,0,0:L0
CATE D1,B2,A:IF A=0 THEN RC=0:RETURN
211 IF (D1<>HP1 AND D1<>HP1+1) OR D2<>
HP2 THEN IF A=1 THEN RC=0:RETURN
212 COLOR 3:PLOT D1,B2:B1=D1:LOCATE HP
1,HP2,A:IF A<>1 THEN S(PT)=S(PT)+S-P:R
C=1:GOSUB 150:RETURN
214 LOCATE HP1+1,HP2,A:IF A<>1 THEN S(
PT)=S(PT)+S-P:RC=1:GOSUB 150:RETURN
220 COLOR 2:PLOT B1,B2:IF (ABS(M2)=0.5
AND VM=1) OR ABS(M2)=1 THEN D2=B2+SGN
(M2):VM=0:GOTO 230
222 VM=1
230 LOCATE B1,D2,A:IF A=0 THEN RC=0:RE
TURN
231 IF (D1<>HP1 AND D1<>HP1+1) OR D2<>
HP2 THEN IF A=1 THEN RC=0:RETURN
232 COLOR 3:PLOT B1,D2:B2=D2:LOCATE HP
1,HP2,A:IF A=3 THEN S(PT)=S(PT)+S-P:RC
=1:GOSUB 150:RETURN
234 LOCATE HP1+1,HP2,A:IF A=3 THEN S(P
T)=S(PT)+S-P:RC=1:GOSUB 150:RETURN
240 T=0:HM=HM-1:IF HM<0 THEN RC=2:RETU
RN
242 GOTO 200
300 COLOR 2:FOR A=3 TO 36:PLOT 27,A:DR
AWTO 45,A:NEXT A:? " HOLE # 1 PAR 2
"
302 P=2:FOR PT=1 TO NP:S=1:? Z$(PT*10-
9,PT*10);""S TURN":B1=INT(RND(0)*11+32
):B2=31:CP=1
304 HP1=35:HP2=6
305 GOSUB 100
310 IF RC=2 THEN S=S+1:CP=1:GOSUB 100:
GOTO 310
320 IF RC=1 THEN NEXT PT:GOTO 400
325 GOSUB 3000
330 IF D1=26 OR D1=46 THEN M1=-M1:GOSU
B 200:GOTO 310
332 M2=-M2:GOSUB 200:GOTO 310
400 GOSUB 40:COLOR 2:FOR A=13 TO 36:PL
OT 27,A:DRAWTO 45,A:NEXT A:FOR A=0 TO
11:PLOT 27+A,13-A:DRAWTO 70,13-A
402 NEXT A:? " HOLE # 2 PAR 2":FOR
PT=1 TO NP:S=1:? Z$(PT*10-9,PT*10);""S
TURN"

```

```

404 HP1=60:HP2=8:B1=INT(RND(0)*11+32):
B2=31
405 CP=1:GOSUB 100
420 IF RC=2 THEN S=S+1:CP=1:GOSUB 100:
GOTO 420
430 IF RC=1 THEN NEXT PT:GOTO 500
435 GOSUB 3000
440 IF D2=1 OR D2=37 OR (D2=14 AND D1>
45) THEN M2=-M2:GOSUB 200:GOTO 420
442 IF D1<27 OR D1=46 OR D1=71 THEN M1
=-M1:GOSUB 200:GOTO 420
444 A=M1:M1=-M2*2:M2=-A/2:GOSUB 200:GO
TO 420
500 GOSUB 40:COLOR 2:FOR A=13 TO 36:PL
OT 17,A:DRAWTO 55,A:NEXT A:FOR A=0 TO
11:PLOT 17+A,13-A:DRAWTO 55-A,13-A
502 NEXT A:COLOR 1:PLOT 36,10:DRAWTO 3
6,36
510 ? " HOLE # 3 PAR 2":FOR PT=1 TO
NP:PRINT Z$(PT*10-9,PT*10);""S TURN":
B1=INT(RND(0)*11+42)
512 S=1:B2=32:CP=1:HP1=25:HP2=32:GOSUB
100
520 IF RC=2 THEN S=S+1:CP=1:GOSUB 100:
GOTO 520
530 IF RC=1 THEN NEXT PT:GOTO 600
540 GOSUB 3000
550 IF D2=1 OR D2=37 THEN M2=-M2:GOSUB
200:GOTO 520
552 IF D1=16 OR D1=36 OR D1=56 THEN M1
=-M1:GOSUB 200:GOTO 520
554 IF D1<36 THEN A=M1:M1=-M2*2:M2=-A/
2:GOSUB 200:GOTO 520
556 A=M1:M1=M2*2:M2=A/2:GOSUB 200:GOTO
520
600 GOSUB 40:COLOR 2:FOR A=13 TO 24:PL
OT 21,A:DRAWTO 63,A:NEXT A:FOR A=25 TO
36:PLOT 21,A:DRAWTO 35,A:NEXT A
602 FOR A=1 TO 8:PLOT 36+A,24+A:DRAWTO
63-A,24+A:PLOT 21+A,13-A:DRAWTO 63-A,
13-A:NEXT A
604 COLOR 1:PLOT 36,25:DRAWTO 36,14:DR
AWTO 51,14:PLOT 51,14:DRAWTO 51,24
610 P=3:? " HOLE # 4 PAR 3":FOR PT=
1 TO NP:PRINT Z$(PT*10-9,PT*10);""S TU
RN":B1=INT(RND(0)*9)+24
615 S=1:B2=32:CP=1:HP1=43:HP2=19:GOSUB
100

```

```

620 IF RC=2 THEN S=S+1:CP=1:GOSUB 100:
GOTO 620
630 IF RC=1 THEN NEXT PT:GOTO 700
640 GOSUB 3000
650 IF D2=4 OR D2=12 OR D2=37 OR (D2=3
3 AND D1>44 AND D1<55) OR (D2=14 AND D
1>36) THEN 654
652 GOTO 656
654 M2=-M2:GOSUB 200:GOTO 620
656 IF D1=20 OR D1=49 OR D1=51 OR D1=6
4 OR D1=36 THEN M1=-M1:GOSUB 200:GOTO
620
658 IF (D1>56 AND D2<13) OR (D2>24 AND
D1<57) THEN A=M1:M1=M2*2:M2=A/2:GOSUB
200:GOTO 620
659 A=M1:M1=-M2*2:M2=-A/2
660 GOSUB 200:GOTO 620
700 GOSUB 40:COLOR 2:FOR A=25 TO 36:PL
OT 41,A:DRAWTO 55,A:NEXT A:FOR A=1 TO
9:PLOT 33-A,25-A:DRAWTO 55,25-A
702 PLOT 24+A,11-A:DRAWTO 55-A,11-A:NE
XT A:FOR A=1 TO 5:PLOT 24,16-A:DRAWTO
55,16-A:NEXT A
704 COLOR 1:FOR A=1 TO 2:PLOT 55,25-A:
DRAWTO 45,15-A:NEXT A
710 ? " HOLE # 5 PAR 2":P=2:FOR PT=
1 TO NP:S=1:? Z$(PT*10-9,PT*10);""S TU
RN":CP=1
715 B1=INT(RND(0)*8)+43:B2=33:HP1=33:H
P2=13:GOSUB 100
720 IF RC=2 THEN S=S+1:CP=1:GOSUB 100:
GOTO 720

```



```

730 IF RC=1 THEN NEXT PT:GOTO 800
740 GOSUB 3000
750 IF D2=1 OR D2=37 OR (D2=25 AND D1<
41) THEN M2=-M2:GOSUB 200:GOTO 720
752 IF D1=23 OR D1=40 OR D1=56 THEN M1
=-M1:GOSUB 200:GOTO 720
754 IF D1<40 AND D2<11 THEN A=M1:M1=-M
2*2:M2=-A/2:GOSUB 200:GOTO 720
756 A=M1:M1=M2*2:M2=A/2:GOSUB 200:GOTO
720
800 GOSUB 40:COLOR 2:FOR A=25 TO 36:PL
OT 31,A:DRAWTO 45,A:NEXT A:FOR A=1 TO
11:PLOT 31,25-A:DRAWTO 51+A,25-A
801 NEXT A
802 FOR A=2 TO 13:PLOT 31,A:DRAWTO 62,
A:NEXT A:COLOR 1:FOR A=1 TO 2:PLOT 30+
A,24:DRAWTO 39+A,15:NEXT A
804 PLOT 41,15:DRAWTO 41,10:PLOT 49,10
:DRAWTO 49,4
810 ? " HOLE # 6 PAR 3":P=3:FOR PT=
1 TO NP:S=1:? Z$(PT*10-9,PT*10);""S TU
RN"
815 B1=INT(RND(0)*8)+34:B2=33:HP1=35:H
P2=13:CP=1:GOSUB 100
820 IF RC=2 THEN S=S+1:CP=1:GOSUB 100:
GOTO 820
830 IF RC=1 THEN NEXT PT:GOTO 900
840 GOSUB 3000
850 IF D2=5 OR D2=1 OR D2=37 OR (D2=25
AND D1>45) OR ((D2=10) AND (D1=41 OR
D1=49)) THEN M2=-M2:GOSUB 200:GOTO 820
852 IF D1=30 OR D1=46 OR D1=63 OR D1=4
9 OR (D1=41 AND D2<16) THEN M1=-M1:GO
SUB 200:GOTO 820
854 A=M1:M1=-M2*2:M2=-A/2:GOSUB 200:GO
TO 820
900 GOSUB 40:COLOR 2:FOR A=1 TO 9:PLOT
25-A,37-A:DRAWTO 54,37-A:PLOT 15+A,17
-A:DRAWTO 51-A,17-A:NEXT A
902 FOR A=21 TO 27:PLOT 16,A:DRAWTO 54
,A:NEXT A:FOR A=1 TO 4:PLOT 16,16+A:DR
AWTO 50+A,16+A:NEXT A
904 COLOR 1:PLOT 38,11:DRAWTO 50,23:PL
OT 38,16:DRAWTO 45,23:PLOT 26,27:DRANT
D 38,27
906 PLOT 39,27:DRAWTO 39,36
910 ? " HOLE # 7 PAR 3":P=3:FOR PT=
1 TO NP:S=1:? Z$(PT*10-9,PT*10);""S TU
RN"

```

```

915 B1=INT(RND(0)*8)+44:B2=33:HP1=33:H
P2=32:CP=1:GOSUB 100
920 IF RC=2 THEN S=S+1:CP=1:GOSUB 100:
GOTO 920
930 IF RC=1 THEN NEXT PT:GOTO 1000
940 GOSUB 3000
950 IF D1=15 OR D1=55 OR (D1=39 AND D2
>26) THEN M1=-M1:GOSUB 200:GOTO 920
952 IF D2=37 OR D2=7 OR D2=27 THEN M2=
-M2:GOSUB 200:GOTO 920
954 IF D1<25 AND D2<17 THEN A=M1:M1=-M
2:M2=-A/2:GOSUB 200:GOTO 920
956 A=M1:M1=M2*2:M2=A/2:GOSUB 200:GOTO
920
1000 GOSUB 40:COLOR 2:FOR A=27 TO 36:P
LOT 29,A:DRAWTO 43,A:NEXT A:FOR A=1 TO
8:PLOT 29-A,27-A:DRAWTO 43+A,27-A
1002 PLOT 21,19-A:DRAWTO 52,19-A:PLOT
21+A,11-A:DRAWTO 52-A,11-A:NEXT A
1004 COLOR 1:PLOT 30,11:DRAWTO 33,14:DR
AWTO 33,21:DRAWTO 36,24:PLOT 37,24:DR
AWTO 40,21:DRAWTO 40,14:DRAWTO 43,11
1010 ? " HOLE # 8 PAR 3":P=3:FOR PT
=1 TO NP:S=1:? Z$(PT*10-9,PT*10)
1015 B1=INT(RND(0)*8+32):B2=33:HP1=36:
HP2=17:CP=1:GOSUB 100
1020 IF RC=2 THEN S=S+1:CP=1:GOSUB 100
:GOTO 1020
1030 IF RC=1 THEN NEXT PT:GOTO 1100
1040 GOSUB 3000
1050 IF D2=37 OR D2=2 THEN M2=-M2:GOSU
B 200:GOTO 1020
1051 IF D1=33 OR D1=40 THEN IF D2=21 O
R D2=14 THEN 1054
1052 IF D1=20 OR D1=53 OR D1=33 OR D1=
40 OR D1=28 OR D1=44 THEN M1=-M1:GOSUB
200:GOTO 1020
1054 IF (D1>43 AND D2>18) OR (D1<30 AN
D D2<11) OR (D1>36 AND D1<44) THEN A=M
1:M1=-M2*2:M2=-A/2:GOSUB 200:GOTO 1020
1056 A=M1:M1=M2*2:M2=A/2:GOSUB 200
1060 GOTO 1020

```

```

1100 GOSUB 40:COLOR 2:FOR A=27 TO 36:P
LOT 29,A:DRAWTO 43,A:NEXT A:FOR A=3 TO
27:PLOT 20,A:DRAWTO 52,A:NEXT A
1102 COLOR 1:PLOT 34,10:DRAWTO 31,13:P
LOT 39,10:DRAWTO 42,13:PLOT 27,14:DR
AWTO 35,22:PLOT 38,22:DRAWTO 46,14
1110 ? " HOLE # 9 PAR 4":P=4:FOR PT
=1 TO NP:S=1:? Z$(PT*10-9,PT*10);""S T
URN"
1115 B1=INT(RND(0)*8+32):B2=33:HP1=36:
HP2=17:CP=1:GOSUB 100
1120 IF RC=2 THEN S=S+1:CP=1:GOSUB 100
:GOTO 1120
1130 IF RC=1 THEN NEXT PT:GOTO 2000
1140 GOSUB 3000
1150 IF D2=37 OR D2=2 OR D2=28 THEN M2
=-M2:GOSUB 200:GOTO 1120
1152 IF D1=19 OR D1=53 OR ((D1=28 OR D
1=44) AND D2>26) THEN M1=-M1:GOSUB 200
:GOTO 1120
1154 IF (D1>37 AND D2>13) OR (D1<36 AN
D D2<14) THEN A=M1:M1=-M2*2:M2=-A/2:G
OSUB 200:GOTO 1120
1156 A=M1:M1=M2*2:M2=A/2:GOSUB 200
1160 GOTO 1120
2000 GRAPHICS 0:? " FINAL SCORE":?
:? " PLAYER SCORE":? "-----"
-----
2005 FOR A=1 TO NP:? Z$(A*10-9,A*10);"
":S(A):NEXT A:POKE 752,1
2010 ? :? "PLAY AGAIN (Y/N)"
2020 GOSUB 3000:A=PEEK(764):IF A<43 A
ND A>35 THEN 2020
2030 IF A=43 THEN RUN
2040 POKE 752,0:? :? "GOOD BYE.":CL
OSE #1:POKE 764,255:END
3000 SOUND 0,50,10,10
3005 HH=HH-10:IF HH<2 AND HH>-6 THEN H
H=2
3010 SOUND 0,200,10,10
3020 SOUND 0,0,0,0:RETURN

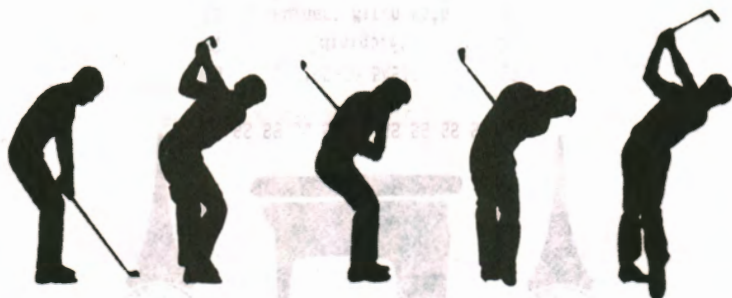
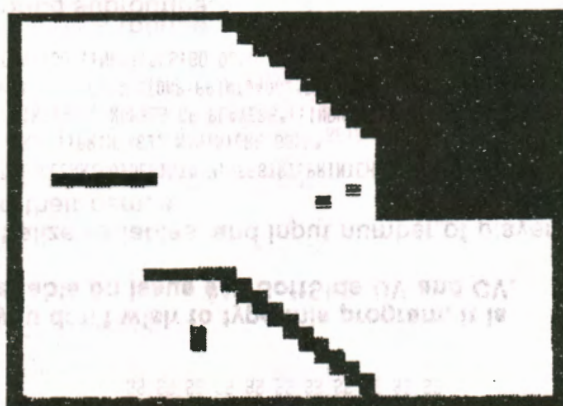
```

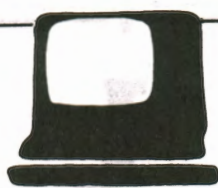


SWAT TABLE

For ATARI® MINIGOLF

LINES	SWAT CODE	LENGTH	LINES	SWAT CODE	LENGTH
10 - 32	NJ	511	620 - 700	KX	623
33 - 60	XZ	502	702 - 750	YS	571
62 - 103	IO	445	752 - 804	IZ	540
104 - 115	JQ	527	810 - 852	OH	519
116 - 158	OR	586	854 - 910	XH	576
200 - 220	ZS	584	915 - 1000	ON	607
222 - 302	AT	560	1002 - 1020	RJ	501
304 - 404	YS	530	1030 - 1100	AM	547
405 - 502	JL	511	1102 - 1150	TA	524
510 - 556	GI	535	1152 - 2030	ER	518
600 - 615	QJ	539	2040 - 3020	UZ	239





```

SS SS SS SS SS SS SS SS SS SS
SS
SS      TRS-80 BASIC      SS
SS      'Minigolf'       SS
SS      Author: Mitch Voth SS
SS      Copyright (c) 1983 SS
SS      SoftSide Publications, Inc SS
SS
SS SS SS SS SS SS SS SS SS SS

```

If you don't wish to type this program, It is available on Issue #40 SoftSide DV and CV.

Initialize variables, and input number of players and their names.

```

10 CLS: CLEAR 200: DEFINT A-H: DEFSTR Z: PRINTCHR$(23): PRINT@18, "TRS-80
  9 HOLE": PRINT@82, "MINIATURE GOLF"
30 PRINT@400, "NUMBER OF PLAYERS": INPUTNP: IFNP>10, 10 ELSE PRINT@40
0, CHR$(30): FORA=1 TO NP: PRINT@400, "PLAYER #": A: INPUTZ(A): PRINT@4
00, CHR$(30): NEXT: CLS: GOTO 300

```

Scoring subroutine.

```

40 CLS: PRINTCHR$(23): PRINT@12, "SCORE": FORA=1 TO NP: PRINTZ(A), S(A)
: NEXT: FORA=1 TO 4000: NEXT: CLS: RETURN

```

Routine to get putter movement and force of hit.

```

50 Z=INKEY$: IFZ<>"", IFASC(Z)<58 AND ASC(Z)>48, HH=VAL(Z)*10: POKEHP,
46: HH=0: VM=0: IFA=1, RESET(C1, C2): RESET(C1+1, C2): GOTO 200 ELSE SET(C1
, C2): SET(C1+1, C2): GOTO 200
60 T=0: IFZ<>"", IFASC(Z)=8, CP=CP+1: IFCP=17, CP=1: IFA=1, RESET(C1, C2
): RESET(C1+1, C2): GOTO 100 ELSE SET(C1, C2): SET(C1+1, C2): GOTO 100 ELSE I
FA=1, RESET(C1, C2): RESET(C1+1, C2): GOTO 100 ELSE SET(C1, C2): SET(C1+1,
C2): GOTO 100
70 IFZ<>"", IFASC(Z)=9, CP=CP-1: IFCP=0, CP=16: IFA=1, RESET(C1, C2): RE
SET(C1+1, C2): GOTO 100 ELSE SET(C1, C2): SET(C1+1, C2): GOTO 100 ELSE IFA=1
, RESET(C1, C2): RESET(C1+1, C2): GOTO 100 ELSE SET(C1, C2): SET(C1+1, C2):
GOTO 100
80 GOTO 50
90 POKEHP, 46: SET(B1, B2): SET(B1+1, B2): IFPOINT(C1, C2)=-1, A=0: RESET
(C1, C2): RESET(C1+1, C2): GOTO 50 ELSE SET(C1, C2): SET(C1+1, C2): A=1: GOTO
050

```

Routine to alter ball or putter position.

```

100 ONCP GOTO 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113,
114, 115, 116
101 C1=B1: C2=B2+2: M1=0: M2=-1: GOTO 90
102 C1=B1+2: M1=-1: GOTO 90
103 C1=B1+4: C2=B2+2: M1=-2: M2=-1: GOTO 90
104 C2=B2+1: M2=-.5: GOTO 90
105 C2=B2: M2=0: GOTO 90
106 C2=B2-1: M2=.5: GOTO 90
107 C1=B1+4: C2=B2-2: M1=-2: M2=1: GOTO 90
108 C1=B1+2: M1=-1: GOTO 90
109 C1=B1: M1=0: GOTO 90
110 C1=B1-2: M1=1: GOTO 90
111 C1=B1-4: C2=B2-2: M1=2: M2=1: GOTO 90
112 C2=B2-1: M2=.5: GOTO 90
113 C2=B2: M2=0: GOTO 90
114 C2=B2+1: M2=-.5: GOTO 90
115 C1=B1-4: C2=B2+2: M1=2: M2=-1: GOTO 90
116 C1=B1-2: M1=1: GOTO 90

```

Hole in one routine.

```

150 IFS=1, PRINT@153, "A HOLE IN ONE!!": FORA=1 TO 2000: NEXT: PRINT@1
53, CHR$(30): RETURN ELSE PRINT@149, "THAT TOOK YOU": S: "STROKES": FORA
=1 TO 2000: NEXT: PRINT@149, CHR$(30): RETURN

```

Calculate reflection angles.

```

200 D1=B1: D2=B2: RESET(B1, B2): RESET(B1+1, B2): IF (ABS(M1)=1 AND HH=1)
ORABS(M1)=2, D1=B1+2*SGN(M1): HH=0 ELSE HH=1
205 T=1+1: IF T>4, RC=2: RETURN

```

Check for hole.

```

210 IFPOINT(D1, B2)=-1, RC=0: RETURN ELSE SET(D1, B2): SET(D1+1, B2): B1=
D1: IFPEEK(HP)>46, IFPEEK(HP)=140, S(PT)=S(PT)+S-P: RC=1: GOSUB 150: R
ETURN ELSE POKEHP, 46
220 RESET(B1, B2): RESET(B1+1, B2): IF (ABS(M2)=.5 AND VM=1) ORABS(M2)=1
, D2=B2+SGN(M2): VM=0 ELSE VM=1
230 IFPOINT(B1, D2)=-1, RC=0: RETURN ELSE SET(B1, D2): SET(B1+1, D2): B2=
D2: IFPEEK(HP)>46, IFPEEK(HP)=140, S(PT)=S(PT)+S-P: RC=1: GOSUB 150: R
ETURN ELSE POKEHP, 46
240 T=0: HH=HH-1: IFHH<0, RC=2: RETURN ELSE 200

```



Display score.

```

300 FORA=50T079:SET(A,44):SET(A,9):NEXT:FORA=9T044:SET(50,A):SET
(51,A):SET(78,A):SET(79,A):NEXT:HP=15648:PRINT@25,"HOLE # 1 PA
R 2";P=2:FORPT=1T0NP:S=1:PRINT@91,CHR$(30);:PRINT@91,Z(PT);"S
TURN";B1=RND(11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2):POKEHP,46:
CP=1
305 GOSUB100
310 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO310
320 IFRC=1,NEXTPT:GOTO400
325 HH=HH-10:IFHH<2,HH=2
330 IFD1=50ORD1=78,M1=-M1:GOSUB200:GOTO310ELSEM2=-M2:GOSUB200:G
OTO310

```

Routines for displaying the individual holes.

```

400 GOSUB40:FORA=50T079:SET(A,44):SET(A+22,9):NEXT:FORA=20T043:S
ET(50,A):SET(51,A):SET(78,A):SET(79,A):NEXT:SET(78,19):SET(79,19
):FORA=78T0101:SET(A,18):NEXT:FORA=10T017:SET(100,A):SET(101,A):
NEXT:FORA=52T071:SET(A,45.5-A/2):NEXT:HP=15663
405 PRINT@25,"HOLE # 2 PAR 2";P=2:FORPT=1T0NP:S=1:PRINT@91,CH
R$(30);:PRINT@91,Z(PT);"S TURN";B1=RND(11)*2+52:B2=41:POKEHP,4
6:CP=1:SET(B1,B2):SET(B1+1,B2):GOSUB100
420 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO420
430 IFRC=1,NEXTPT:GOTO500
435 HH=HH-10:IFHH<2ANDHH>-6,HH=2
440 IFD2=90RD2=44OR(D2=18ANDD1>79),M2=-M2:GOSUB200:GOTO420ELSEIF
D1=50ORD1=78ORD1=100,M1=-M1:GOSUB200:GOTO420ELSEA=M1:M1=-M2*2:M2
=-A/2:GOSUB200:GOTO420
500 GOSUB40:FORA=20T043:SET(22,A):SET(23,A):SET(50,A):SET(51,A):
SET(78,A):SET(79,A):NEXT:FORA=22T079:SET(A,44):NEXT:FORA=44T057:
SET(A,9):NEXT:PRINT@409,CHR$(191);:FORA=10T019:SET(63-A*2,A):SET
(62-A*2,A):SET(38+A*2,A):SET(39+A*2,A):NEXT:HP=16210
510 PRINT@25,"HOLE # 3 PAR 2";P=2:FORPT=1T0NP:S=1:PRINT@91,CH
R$(30);:PRINT@91,Z(PT);"S TURN";B1=RND(11)*2+52:B2=41:SET(B1,B
2):SET(B1+1,B2):POKEHP,46:CP=1:GOSUB100
520 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO520
530 IFRC=1,NEXTPT:GOTO600
540 HH=HH-10:IFHH<2ANDHH>-6,HH=2
550 IFD2=90RD2=44,M2=-M2:GOSUB200:GOTO520ELSEIFD1=22ORD1=50ORD1=
78,M1=-M1:GOSUB200:GOTO520ELSEIFD1<50,A=M1:M1=-M2*2:M2=-A/2:GOSU
B200:GOTO520ELSEA=M1:M1=M2*2:M2=A/2:GOSUB200:GOTO520
600 GOSUB40:FORA=17T044:SET(50,A):SET(51,A):SET(78,A):SET(79,A):
NEXT:FORA=17T029:SET(98,A):SET(99,A):SET(116,A):SET(117,A):NEXT:
FORA=66T0101:SET(A,9):NEXT:FORA=52T077:SET(A,44):NEXT:FORA=94T01
01:SET(A,37):NEXT:FORA=80T097:SET(A,17):NEXT

```

```

610 FORA=10T016:SET(85-2*A,A):SET(84-2*A,A):SET(83+A*2,A):SET(82
+A*2,A):SET(60+A*2,A+20):SET(61+A*2,A+20):SET(134-A*2,A+20):SET(
135-2*A,A+20):NEXT:HP=15852:PRINT@25,"HOLE # 4 PAR 3";P=3:FOR
PT=1T0NP:S=1:PRINT@91,CHR$(30);:PRINT@91,Z(PT);"S TURN";
615 CP=1:B1=RND(11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2):GOSUB100
620 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO620
630 IFRC=1,NEXTPT:GOTO700
640 HH=HH-10:IFHH<2ANDHH>-6,HH=2
650 IFD2=90RD2=44OR(D2=37ANDD1>90)OR(D2=17ANDD1>70ANDD1<100),M2=
-M2:GOSUB200:GOTO620ELSEIFD1=50ORD1=78ORD1=98ORD1=116,M1=-M1:GOS
UB200:GOTO620ELSEIF(D1>80ANDD2<20)OR(D2>25ANDD1<96),A=M1:M1=M2*2
:M2=A/2:GOSUB200:GOTO620ELSEA=M1:M1=-M2*2:M2=-A/2
660 GOSUB200:GOTO620
700 GOSUB40:FORA=19T044:SET(78,A):SET(79,A):NEXT:FORA=50T077:SET
(A,44):NEXT:FORA=32T043:SET(50,A):SET(51,A):NEXT:FORA=42T049:SET
(A,32):NEXT:FORA=19T022:SET(22,A):SET(23,A):NEXT:FORA=42T059:SET
(A,9):NEXT:FORA=9T018:SET(42+A*2,A):SET(43+A*2,A)
710 SET(59-A*2,A):SET(58-A*2,A):SET(A*2+4,A+14):SET(A*2+5,A+14):
SET(40+A*2,A+14):SET(41+A*2,A+14):NEXT:HP=15827:PRINT@25,"HOLE #
5 PAR 2";P=2:FORPT=1T0NP:S=1:PRINT@91,CHR$(30);:PRINT@91,Z(PT);
"S TURN";B1=RND(11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2)
715 CP=1:GOSUB100
720 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO720
730 IFRC=1,NEXTPT:GOTO800
740 HH=HH-10:IFHH<2ANDHH>-6,HH=2
750 IFD2=90RD2=44OR(D2=34ANDD1<50),M2=-M2:GOSUB200:GOTO720ELSEIF
D1=22ORD1=50ORD1=78,M1=-M1:GOSUB200:GOTO720ELSEIFD1<50ANDD2<20,A
=M1:M1=-M2*2:M2=-A/2:GOSUB200:GOTO720ELSEA=M1:M1=M2*2:M2=A/2:GOS
UB200:GOTO720

```



```

800 GOSUB40:FORA=9T044:SET(50,A):SET(51,A):NEXT:FORA=32T044:SET(
78,A):SET(79,A):NEXT:FORA=52T077:SET(A,44):NEXT:FORA=52T0111:SET
(A,9):NEXT:FORA=9T023:SET(112,A):SET(113,A):NEXT:FORA=80T095:SET
(A,32):NEXT:FORA=18T023:SET(70,A):SET(71,A):SET(90,A-6)
810 SET(91,A-6):NEXT:FORA=24T032:SET(116-A#2,A):SET(117-A#2,A):S
ET(158-A#2,A):SET(159-A#2,A):NEXT:HP=15838:PRINT#25,"HOLE # 6 P
AR 3";P=3:FORPT=1TONP:S=1:PRINT#91,CHR$(30);PRINT#91,Z(PT);"S
TURN";CP=1:B1=RND(11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2)
815 GOSUB100
820 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO820
830 IFRC=1,NEXTPT:GOTO900
840 HH=HH-10:IFHH<2ANDHH>-6,HH=2
850 IFD2=9ORD2=44OR(D2=32ANDD1<79),M2=-M2:GOSUB200:GOTO820ELSEIF
D1=50ORD1=78ORD1=112ORD1=90OR(D1=70ANDD2<23),M1=-M1:GOSUB200:GOT
O820ELSEA=M1:M1=-M2#2:M2=-A/2:GOSUB200:GOTO820
900 GOSUB40:FORA=30T079:SET(A,44):NEXT:FORA=23T043:SET(78,A):SET
(79,A):NEXT:FORA=30T051:SET(A,30):SET(A,9):NEXT:FORA=20T033:SET(
8,A):SET(9,A):SET(50,A+11):SET(51,A+11):NEXT:FORA=10T029:SET(A,2
9+A/2):SET(A,24.5-A/2):NEXT:FORA=50T079
910 SET(A,A/2-16):NEXT:FORA=50T067:SET(A,A/2-9):NEXT:FORA=50T059
:SET(A,A/2-1):NEXT:HP=16150:PRINT#25,"HOLE # 7 PAR 3";P=3:FORP
T=1TONP:S=1:PRINT#91,CHR$(30);PRINT#91,Z(PT);"S TURN";B1=RND(
11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2):CP=1:GOSUB100
920 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO920
930 IFRC=1,NEXTPT:GOTO1000
940 HH=HH-10:IFHH<2ANDHH>-6,HH=2
950 IFD1=78ORD1=80R(D1=50ANDD2<30),M1=-M1:GOSUB200:GOTO920ELSEIF
D2=30ORD2=9ORD2=44,M2=-M2:GOSUB200:GOTO920ELSEIFD1<40ANDD2<24,A=
M1:M1=-M2#2:M2=-A/2:GOSUB200:GOTO920ELSEA=M1:M1=M2#2:M2=A/2:GOSU
B200:GOTO920
1000 GOSUB40:FORA=50T079:SET(A,44):SET(A,9):NEXT:FORA=33T043:SET
(50,A):SET(51,A):SET(78,A):SET(79,A):NEXT:FORA=18T024:SET(32,A):
SET(33,A):SET(96,A):SET(97,A):SET(56,A+1):SET(57,A+1):SET(72,A+1
):SET(73,A+1):NEXT:FORA=34T049:SET(A,A/2+8)
1010 SET(A,34.5-A/2):SET(A+46,49.5-A/2):SET(A+46,A/2-7):NEXT:FOR
A=56T064:SET(A,A/2-2):SET(A+9,58-A/2):NEXT:FORA=52T057:SET(A,A/2
-10):SET(A+20,44.5-A/2):NEXT:HP=15904:PRINT#25,"HOLE # 8 PAR 3"
;P=3:FORPT=1TONP:S=1:PRINT#91,CHR$(30);B1=RND(11)*2+52
1015 PRINT#91,Z(PT);"S TURN";B2=41:SET(B1,B2):SET(B1+1,B2):CP=
1:GOSUB100
1020 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO1020
1030 IFRC=1,NEXTPT:GOTO1100

```

```

1040 HH=HH-10:IFHH<2ANDHH>-6,HH=2
1050 IFD2=44ORD2=9,M2=-M2:GOSUB200:GOTO1020ELSEIFD1=32ORD1=96ORD
1=72ORD1=56ORD1=50ORD1=78,M1=-M1:GOSUB200:GOTO1020ELSEIF(D1<78AN
DD1>63)OR(D1>70ANDD2>20)OR(D1<60ANDD2<20),A=M1:M1=-M2#2:M2=-A/2:
GOSUB200:GOTO1020ELSEA=M1:M1=M2#2:M2=A/2:GOSUB200
1060 GOTO1020
1100 GOSUB40:FORA=34T095:SET(A,9):NEXT:FORA=50T079:SET(A,44):NEX
T:FORA=33T043:SET(50,A):SET(51,A):SET(78,A):SET(79,A):NEXT:FORA=
10T033:SET(34,A):SET(35,A):SET(94,A):SET(95,A):NEXT:FORA=36T049:
SET(A,33):SET(A+44,33):NEXT:FORA=48T063
1110 SET(A,A/2-1):SET(A+18,54.5-A/2):NEXT:FORA=56T061:SET(A,49.5
-A/2):SET(A+12,A/2-9):NEXT:HP=15904:PRINT#25,"HOLE # 9 PAR 4";P=
4:FORPT=1TONP:PRINT#91,CHR$(30);PRINT#91,Z(PT);"S TURN";S=1
:B1=RND(11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2):CP=1:GOSUB100
1120 IFRC=2,S=S+1:CP=1:GOSUB100:GOTO1120
1130 IFRC=1,NEXTPT:GOTO2000
1140 HH=HH-10:IFHH<2ANDHH>-6,HH=2
1150 IFD2=9ORD2=33ORD2=44,M2=-M2:GOSUB200:GOTO1120ELSEIFD1=34ORD
1=94OR(D1=78ANDD2>30)OR(D1=50ANDD2>30),M1=-M1:GOSUB200:GOTO1120E
LSEIF(D1<64ANDD2>22)OR(D1<64ANDD2<22),A=M1:M1=-M2#2:M2=-A/2:GOSU
B200:GOTO1120ELSEA=M1:M1=M2#2:M2=A/2:GOSUB200
1160 GOTO1120

```

End game routine.

```

2000 CLS:PRINTCHR$(23);PRINT#20,"FINAL SCORE:":FORA=1TONP:PRINT
Z(A),S(A):NEXT:PRINT#900,"PLAY AGAIN (Y/N)";INPUTZ:IFZ="Y",10

```



SWAT TABLE

For TRS-80® MINIGOLF

LINES	SWAT CODE	LENGTH	LINES	SWAT CODE	LENGTH
10 - 60	YY	522	615 - 700	WD	520
70 - 107	VS	523	710 - 800	BW	649
108 - 205	KJ	447	810 - 900	WX	608
210 - 300	MC	533	910 - 1000	UU	617
305 - 430	NR	503	1010 - 1050	DJ	540
435 - 520	IY	502	1060 - 1150	BK	658
530 - 610	HW	573	1160 - 2000	ZL	104





```

800 60SUB40:FORA=9T044:SET(50,A):SET(51,A):NEXT:FORA=32T044:SET(
78,A):SET(79,A):NEXT:FORA=52T077:SET(A,44):NEXT:FORA=52T0111:SET
(A,9):NEXT:FORA=9T023:SET(112,A):SET(113,A):NEXT:FORA=80T095:SET
(A,32):NEXT:FORA=18T023:SET(70,A):SET(71,A):SET(90,A-6)
810 SET(91,A-6):NEXT:FORA=24T032:SET(116-A*2,A):SET(117-A*2,A):S
ET(158-A*2,A):SET(159-A*2,A):NEXT:HP=15838:PRINT@25,"HOLE # 6 P
AR 3";:P=3:FORPT=1TONP:S=1:PRINT@91,CHR$(30);:PRINT@91,Z(PT);""S
TURN";:CP=1:B1=RND(11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2)
815 60SUB100
820 IFRC=2,S=S+1:CP=1:60SUB100:GOTO820
830 IFRC=1,NEXTPT:GOTO900
840 HH=HH-10:IFHH<2ANDHH>-6,HH=2
850 IFD2=9ORD2=44OR(D2=32ANDD1>79),M2=-M2:60SUB200:GOTO820ELSEIF
D1=50ORD1=78ORD1=112ORD1=90OR(D1=70ANDD2<23),M1=-M1:60SUB200:GOT
O820ELSEA=M1:M1=-M2*2:M2=-A/2:60SUB200:GOTO820
900 60SUB40:FORA=30T079:SET(A,44):NEXT:FORA=23T043:SET(78,A):SET
(79,A):NEXT:FORA=30T051:SET(A,30):SET(A,9):NEXT:FORA=20T033:SET(
8,A):SET(9,A):SET(50,A+11):SET(51,A+11):NEXT:FORA=10T029:SET(A,2
9+A/2):SET(A,24.5-A/2):NEXT:FORA=50T079
910 SET(A,A/2-16):NEXT:FORA=50T067:SET(A,A/2-9):NEXT:FORA=50T059
:SET(A,A/2-1):NEXT:HP=16150:PRINT@25,"HOLE # 7 PAR 3";:P=3:FORP
T=1TONP:S=1:PRINT@91,CHR$(30);:PRINT@91,Z(PT);""S TURN";:B1=RND(
11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2):CP=1:60SUB100
920 IFRC=2,S=S+1:CP=1:60SUB100:GOTO920
930 IFRC=1,NEXTPT:GOTO1000
940 HH=HH-10:IFHH<2ANDHH>-6,HH=2
950 IFD1=78ORD1=80R(D1=50ANDD2>30),M1=-M1:60SUB200:GOTO920ELSEIF
D2=30ORD2=9ORD2=44,M2=-M2:60SUB200:GOTO920ELSEIFD1<40ANDD2<24,A=
M1:M1=-M2*2:M2=-A/2:60SUB200:GOTO920ELSEA=M1:M1=M2*2:M2=A/2:60SU
B200:GOTO920
1000 60SUB40:FORA=50T079:SET(A,44):SET(A,9):NEXT:FORA=33T043:SET
(50,A):SET(51,A):SET(78,A):SET(79,A):NEXT:FORA=18T024:SET(32,A):
SET(33,A):SET(96,A):SET(97,A):SET(56,A+1):SET(57,A+1):SET(72,A+1
):SET(73,A+1):NEXT:FORA=34T049:SET(A,A/2+8)
1010 SET(A,34.5-A/2):SET(A+46,49.5-A/2):SET(A+46,A/2-7):NEXT:FOR
A=56T064:SET(A,A/2-2):SET(A+9,58-A/2):NEXT:FORA=52T057:SET(A,A/2
-10):SET(A+20,44.5-A/2):NEXT:HP=15904:PRINT@25,"HOLE # 8 PAR 3"
;:P=3:FORPT=1TONP:S=1:PRINT@91,CHR$(30);:B1=RND(11)*2+52
1015 PRINT@91,Z(PT);""S TURN";:B2=41:SET(B1,B2):SET(B1+1,B2):CP=
1:60SUB100
1020 IFRC=2,S=S+1:CP=1:60SUB100:GOTO1020
1030 IFRC=1,NEXTPT:GOTO1100

```

```

1040 HH=HH-10:IFHH<2ANDHH>-6,HH=2
1050 IFD2=44ORD2=9,M2=-M2:60SUB200:GOTO1020ELSEIFD1=32ORD1=96ORD
1=72ORD1=56ORD1=50ORD1=78,M1=-M1:60SUB200:GOTO1020ELSEIF(D1<78AN
DD1>63)OR(D1>70ANDD2>20)OR(D1<60ANDD2<20),A=M1:M1=-M2*2:M2=-A/2:
60SUB200:GOTO1020ELSEA=M1:M1=M2*2:M2=A/2:60SUB200
1060 GOTO1020
1100 60SUB40:FORA=34T095:SET(A,9):NEXT:FORA=50T079:SET(A,44):NEX
T:FORA=33T043:SET(50,A):SET(51,A):SET(78,A):SET(79,A):NEXT:FORA=
10T033:SET(34,A):SET(35,A):SET(94,A):SET(95,A):NEXT:FORA=36T049:
SET(A,33):SET(A+44,33):NEXT:FORA=48T063
1110 SET(A,A/2-1):SET(A+18,54.5-A/2):NEXT:FORA=56T061:SET(A,49.5
-A/2):SET(A+12,A/2-9):NEXT:HP=15904:PRINT@25,"HOLE # 9 PAR 4";:
P=4:FORPT=1TONP:PRINT@91,CHR$(30);:PRINT@91,Z(PT);""S TURN";:S=1
:B1=RND(11)*2+52:B2=41:SET(B1,B2):SET(B1+1,B2):CP=1:60SUB100
1120 IFRC=2,S=S+1:CP=1:60SUB100:GOTO1120
1130 IFRC=1,NEXTPT:GOTO2000
1140 HH=HH-10:IFHH<2ANDHH>-6,HH=2
1150 IFD2=9ORD2=33ORD2=44,M2=-M2:60SUB200:GOTO1120ELSEIFD1=34ORD
1=94OR(D1=78ANDD2>30)OR(D1=50ANDD2>30),M1=-M1:60SUB200:GOTO1120E
LSEIF(D1<64ANDD2>22)OR(D1<64ANDD2<22),A=M1:M1=-M2*2:M2=-A/2:60SU
B200:GOTO1120ELSEA=M1:M1=M2*2:M2=A/2:60SUB200
1160 GOTO1120

```

End game routine.

```

2000 CLS:PRINTCHR$(23);:PRINT@20,"FINAL SCORE:":FORA=1TONP:PRINT
Z(A),S(A):NEXT:PRINT@900,"PLAY AGAIN (Y/N)";:INPUTZ:IFZ="Y",10

```



SWAT TABLE

For TRS-80® MINIGOLF

LINES	SWAT CODE	LENGTH	LINES	SWAT CODE	LENGTH
10 - 60	YY	522	615 - 700	WD	520
70 - 107	VS	523	710 - 800	BW	649
108 - 205	KJ	447	810 - 900	WX	608
210 - 300	MC	533	910 - 1000	UU	617
305 - 430	NR	503	1010 - 1050	DJ	540
435 - 520	IY	502	1060 - 1150	BK	658
530 - 610	HW	573	1160 - 2000	ZL	104



General Information

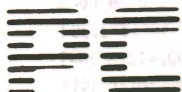
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Be sure to tell us what kind of computer you have.

Line Listings



IBM® PC USERS

The line listings in this booklet appear in a 40-column format. If you type **LIST** when your computer is displaying 40-column text (**WIDTH 40**), your screen should display exactly what appears in the printed listing. Be sure to use **SWAT** on your program, and get the free reprint if you don't have **SWAT**.



APPLE USERS

The line listings in this booklet are in standard Applesoft® format, and they appear exactly as they should on your screen when you type **LIST**. Things to watch out for when typing are:

- **REM** and **DATA** statements: Applesoft always **LISTs** an extra space after the keyword. Therefore, you should type one space less than what appears in the listing.

- **Spaces between quotes:** Applesoft is a bit eccentric about how it **LISTs** these. Just **LIST** the line after you type it, and compare it to the printed listing.

Also, be sure to use **SWAT** on your program, and get the free reprint if you don't have **SWAT**.



ATARI® USERS

The line listings in this booklet are in standard 38-column format, with special conventions for representing unprintable characters:

You must type underlined characters, including blank spaces, in inverse video.

When graphics or control characters are included in a string (between quotation marks), a nearby **REM** statement will make note of it; in such cases, graphics characters appear as the corresponding lower-case letters, and control characters appear as the corresponding unshifted key symbols. For example: the lower-case letter **s** represents a graphic cross, which you type by pressing the **S** key while holding down the **CTRL** key; the **=** sign represents **CTRL-down-arrow**, which you type by pressing and releasing the **ESC** key, then pressing the **=** key while holding down **CTRL**. For more information about entering control characters, refer to Appendix F and the back cover of your Atari **BASIC Reference Manual**.

There are two exceptions to our above convention: A clear-screen character (**ESC SHIFT-CLEAR**) appears in our listings as a right-hand brace, which looks like this: **}**. The other exception is that a shifted **=** sign appears as a broken, vertical line: **|**.

Occasionally, a program will demand that we vary from these conventions. In such a case, a nearby **REM** statement or the program's introductory article will clearly note the special instructions.



TRS-80® USERS

The line listings in this booklet are in standard 64-column format, and they appear exactly as they should on your screen when you type **LIST**. Be sure to use **SWAT** on your program, and get the free reprint if you don't have **SWAT**.

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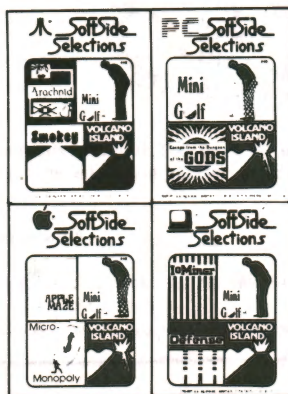
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