

RUNS ON AN ATARI IN 8K

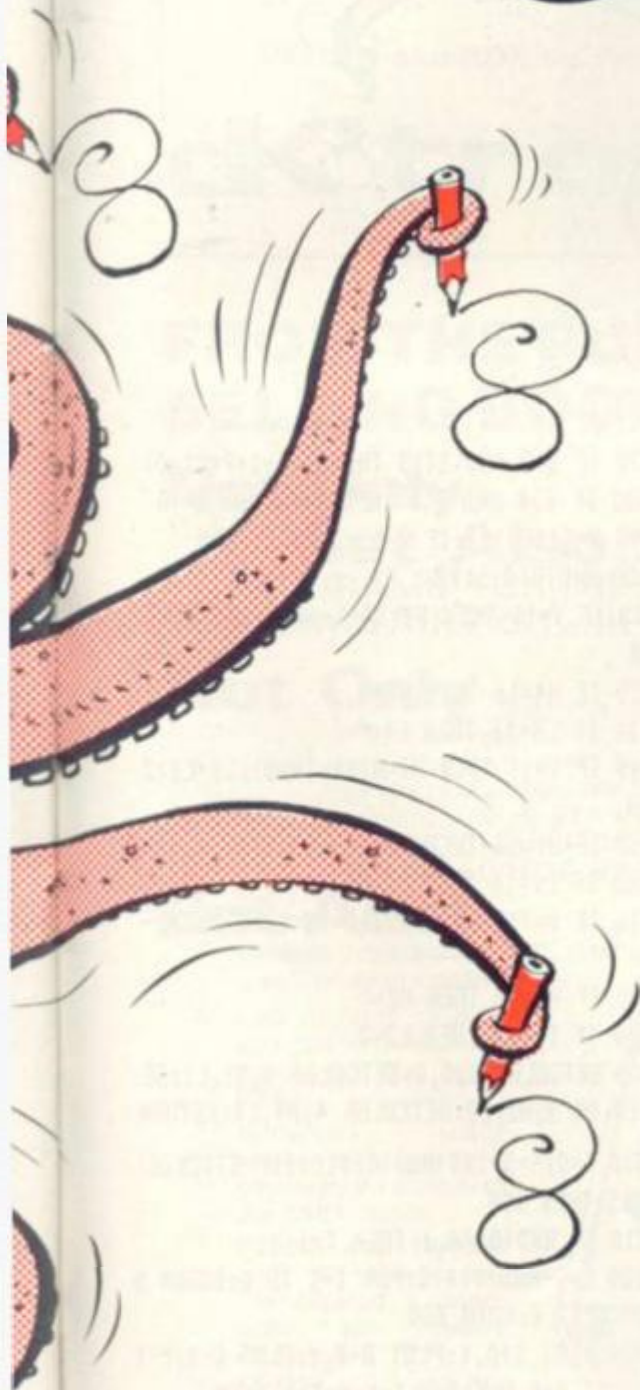
WITH A JOYSTICK

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OCTA



DRAW



If you thought Etch-a-Sketch was the last word in automated art, Octadraw will prove you wrong.

As the name suggests, Octadraw enables the player to draw in eight directions at once. This use of symmetry will suggest all kinds of new ideas to the amateur artist and produce some interesting results from those who previously believed they possessed no artistic bent whatsoever.

The program is designed for an Atari with 8K and at least one joystick.

Run the program, then press the start button at the right of the keyboard. You will see a blinking cursor in the centre of the screen. Using the joystick in slot #1, you may move the cursor around the screen. With the fire-button pressed, the cursor will leave a trail of colour as it moves. Seven mirror images of the line will also appear, three will match the cursor colour, and four will be a different colour.

Pressing the select button (just above start at the right of the keyboard) will select the computer to do the drawing, while you sit back and watch. When you wish to continue drawing, just move joystick #1 and hold it until the computer finishes the line it is currently drawing. You may then add to the computer's drawing.

Pressing the button with the

word "clear" on it will erase the current picture.

If a joystick is placed in slot #2, you can control the colours that Octadraw uses. Pressing forward will change the background colour; pressing left changes one of the drawing colours while pressing right changes the other. Holding the fire-button down during any of these three operations will change not the colour but the luminance of the corresponding colour. With eight shades of 16 colours for each of the three parts of the drawing, there are over two million possible colour combinations!

VARIABLES USED

A=32: Added to x-value to centre drawing.

C=3: COLOUR value

H1, H2, H4: Colours used in SETCOLOUR x, Hx, Ly statements

I: Loop variable

KEY=764: PEEK address to determine which key has been pressed

L: Used in line 10 to create mixed mode display

Used in line 820 to determine length of line to be drawn by the computer

L1, L2, L4: Luminances used in SETCOLOUR x, Hx, Ly statements

P=95: Used to calculate reflections across X-axis

Q=127: Used to calculate reflections across Y-axis

AUTOMATED ART MADE EASY



S: In line 100 S is the value of STICK(0). This determines the direction in which the cursor will move.

In line 800, the computer "makes up" a value for S, and this value determines the direction of cursor movement.

START=53279: PEEKing at this location reveals which of the START, SELECT, or OPTION buttons are pressed.

T: In line 500, T gives the status of the fire-button: 0 if pressed, 1 if not. This determines whether a line will be drawn or not.

Similarly, in lines 800 and 810 the computer "pretends" to press the fire-button about 9/10ths of the time. You may change this fraction by changing "0.1" in line 810 to some other fraction between 0 and 1.

V: Reflects any activity from joystick #2. This changes the colours of the drawing.

W: Tests for the fire-button on joystick #2. This affects the brightness of the colours.

X, Y: The coordinates of the point to be PLOTted.

Z: Temporary storage used when X and Y are switched at the end of the drawing subroutine.

10 GRAPHICS 0:POKE 752,1:L=6+PEEK(741)+256*PEEK(742):POSITION 3,4:? "oCtA-dR

aW":POSITION 23,4:? "BY JAMES GARDN"

20 POSITION 6,9:? "Press START"

30 SETCOLOR 2,2,4:SETCOLOR 4,2,4:SETCOLOR 0,2,8:POKE L+4,7:POKE L+5,6:KEY=764:START=53279

40 IF PEEK(START)=7 THEN 40

50 X=47:Y=X:GRAPHICS 23:C=3:H1=12:L1=8

:H2=L1:L2=2:H4=L2:L4=H2:GOSUB 700:A=32

:P=95:Q=127

100 S=STICK(0):GOSUB 500:IF PEEK(START)=5 THEN 800

110 GOTO 100

500 PLOT X+A,Y:COLOR 1:PLQT X+A,Y:T=STRIG(0)

520 COLOR C-C*T:GOSUB 900:COLOR 2-T-T:GOSUB 900

540 IF PEEK(KEY)=54 THEN POKE KEY,0:GRAPHICS 23:X=47:Y=X:GOTO 700

550 IF S/2=INT(S/2) THEN Y=Y-1+P*(Y=0)

560 IF S=9 OR S=13 OR S=5 THEN Y=Y+1-P

*(Y=P)

570 IF S>8 AND S<13 THEN X=X-1+P*(X=0)

580 IF S>4 AND S<9 THEN X=X+1-P*(X=P)

590 V=STICK(1):IF V=15 THEN RETURN

600 W=STRIG(1)*2

610 IF V=14 THEN H4=H4+1-(W=0):L4=L4+2-W

620 IF H4=16 THEN H4=0

630 IF L4=16 THEN L4=0

640 IF V=11 THEN H1=H1+1-(W=0):L1=L1+2-W

650 IF H1=16 THEN H1=0

660 IF L1=16 THEN L1=0

670 IF V=7 THEN H2=H2+1-(W=0):L2=L2+2-W

680 IF H2=16 THEN H2=0

690 IF L2=16 THEN L2=0

700 SETCOLOR 0,0,0:SETCOLOR 1,H1,L1:SETCOLOR 2,H2,L2:SETCOLOR 4,H4,L4:RETURN

800 T=0:S=5+INT(RND(0)*10):IF STICK(0)<15 THEN 100

810 IF RND(0)<0.1 THEN T=1

820 L=2+RND(0)*10:FOR I=1 TO L:GOSUB 520:NEXT I:GOTO 800

900 PLOT X+A,Y:PLOT Q-X,Y:PLOT Q-X,P-Y:PLOT X+A,P-Y:Z=X:X=Y:Y=Z:RETURN