## Noe Tac Tic for the HP-12C

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This is not ' $\mathrm{O} \& \mathrm{X}$ ' but ' $1 \& 2$ '. 1 is you and 2 is the 12 C , which plays randomly. The 12 C has no tactics $<\mathrm{G}>$ but plays legally. It is generally an easy opponent but if you forfeit moves it can be a challenge. To forfeit moves just press R/S or 0 R/S for your move. The 1-9 keypad is our 3 by 3 grid. R/S clears the grid and you see 0.000000000 . Key your move, press R/S, see: C.XXXYYYZZZ. C=the 12C's move, and the decimals refer to the grid ( $\mathrm{XXX}=$ moves on 123, YYY on 345 etc). If the grid is full the 12 C just frantically $<\mathrm{G}>$ keeps on trying, in which case you should interrupt, and re-start with $f$ PRGM R/S. Have fun with this new version of an old game :-) Store seed in PMT R/S, you are away!
.5824163 PMT

| R/S $\rightarrow 0.000000000$ | Let 12C go first |
| :---: | :---: |
| R/S $\rightarrow 7.000000200$ | showing the ' 2 ' in position 7. |
| 5 R/S $\rightarrow 1.200010200$ | ignore the 1-4-7 win, the 12 C might not notice ;-) |
| 8 R/S $\rightarrow 4.200210210$ | Yikes, it completed! So much for randomness! |
| ust press | e-start. No need to re-key a seed. |


| Keystrokes | Display | Keystrokes | Display | Keystrokes | Display |
| :---: | :---: | :---: | :---: | :---: | :---: |
| f P/R |  | f NPV | 16-42 13 | PMT | 33-14 |
| f CLEAR PRGM | 00- | R/S | 17-31 | X | 34- 20 |
| CLX | 01- 35 | g INTG | 18-43 25 | 1 | 35-1 |
| 9 CFO | 02-43 13 | n | 19-11 | + | 36-40 |
| CLX | 03-35 | RCL g CFj | 20-45,43 14 | g INTG | 37-43 25 |
| 9 CFj | 04-43 14 | 2 | 21- 2 | n | 38-11 |
| 8 | 05-8 | 9 x , | 22-43 34 | RCL g CFi | 39-45,4314 |
| RCL n | 06-45 11 | g GTO 26 | 23-43,33 26 | $9 \mathrm{x}=0$ | 40-43 35 |
| g $x \leq y$ | 07-43 34 | 1 | 24-1 | g GTO 43 | 41-43,33 43 |
| 9 GTO 03 | 08-43,33 03 | 9 CFj | 25-43 14 | g GTO 26 | 42-43,33 26 |
| ENTER | 09-36 | 9 | 26-9 | 2 | 43-2 |
| \%T | 10- 23 | RCL PMT | 27-45 14 | 9 CFj | 44-4314 |
| X | 11- 20 | 9 | 28-9 | RCL n | 45-45 11 |
| i | 12-12 | 9 | 29-9 | 9 CFO | 46-43 13 |
| $\dagger 9$ | 13-42 9 | 7 | 30- 7 | g GTO 14 | 47-43,3314 |
| 9 | 14-9 | X | 31- 20 | f P/R |  |
| n | 15-11 | g FRAC | 32-43 24 |  |  |

Getting some strategy into this to make it more like Tic-tac-toe is not easy. I saw an apparently ingenious method using the 3 by 3 magic square in 65 Notes V4N6P51. My thanks to Gene Wright for the challenge to write games for the 12C.

