

HP-41C 2D Trek Game Program by J. Dennis Green  
PPC Calculator Journal V8 No 5 Pg 28 July 1981

```
01 LBL "2DTREK" ;2D Trek Game Initialization
02 "\3C\00\80\00" ;3C008000 hex set flags
03 ASTO d
04 "SEED"
05 PROMPT
06 CLRG
07 X<0?
08 SF 04
09 ABS
10 STO 00
11 INT
12 X>0?
13 SF 05
14 2
15 X<=Y?
16 SF 06
17 X<Y?
18 SF 07
19 E2
20 STO 05
21 STO 10
22 STO 15
23 LBL 03
24 XEQ 17
25 8
26 XEQ 18
27 *
28 FC? 05
29 RND
30 STO 01
31 LASTX
32 FRC
33 ACOS
34 FC? 05
35 RND
36 STO 02
37 RCL 02
38 SQRT
39 PI
40 Y^X
41 P-R
42 STO 03
43 RDN
44 STO 04
45 FC? 03
46 GTO 12
47 XEQ 11
48 XEQ 09
49 SF 16
50 GTO 03
51 LBL 04
52 "ENTERPRISE"
53 FC? 03
54 "KLINGON"
55 AVIEW
56 FS? 03
57 GTO 00
58 TONE 48
59 TONE 0
60 TONE 42
61 GTO 01
62 LBL 00
63 TONE 71
64 TONE 87
65 TONE 8
66 LBL 01
67 FS?C 18
```

```

68 GTO "?"      ;Shows "NONEXISTENT" (ship destroyed)
69 PSE
70 RCL 05
71 11
72 %
73 RND
74 STO 18
75 LBL H        ;Scan Routine
76 DSE 18
77 LBL 05
78 TONE 89
79 FS? 03
80 GTO 00
81 FS? 07
82 GTO 02
83 LBL 00
84 CF 22
85 "ENG="
86 ARCL 05
87 AVIEW
88 PSE
89 "SHLD="
90 ARCL 06
91 AVIEW
92 PSE
93 "PH="
94 ARCL 07
95 AVIEW
96 PSE
97 "V="
98 RCL 01
99 RND
100 ARCL X
101 ">" \0D="    ;Append 1 space, 0D hex = angle sign, 1 equal sign
102 RCL 02
103 RND
104 ARCL X
105 AVIEW
106 PSE
107 "\0D="      ;0D hex = angle sign, 1 equal sign
108 RCL 08
109 RND
110 FC? 04
111 FC? 19
112 ARCL X
113 AVIEW
114 PSE
115 CLA
116 RCL 09
117 RCL 10
118 *
119 RND
120 RCL 10
121 *
122 ARCL X
123 FC? 04
124 FC? 06
125 GTO 01
126 FS? 03
127 FC? 10
128 GTO 00
129 CLA
130 LBL 00
131 FS? 02
132 CLA
133 LBL 01
134 ">" KM"
135 AVIEW
136 FC? 03
137 FS? 04

```

138 GTO 06  
139 LBL 02  
140 30  
141 RCL 05  
142 X>Y?  
143 GTO 00  
144 FC? 02  
145 GTO I  
146 GTO 01  
147 LBL 00  
148 1  
149 RCL 08  
150 ABS  
151 X<=Y?  
152 SF 15  
153 9  
154 RCL 09  
155 X>Y?  
156 GTO 00  
157 FC? 15  
158 GTO E  
159 LBL 00  
160 FC? 02  
161 GTO 00  
162 RCL 05  
163 45  
164 X<=Y?  
165 GTO I  
166 GTO 01  
167 LBL 00  
168 RCL 10  
169 X<Y?  
170 GTO 00  
171 R^  
172 5  
173 X<=Y?  
174 GTO 00  
175 FC? 17  
176 GTO D  
177 GTO 02  
178 LBL 00  
179 RCL 05  
180 40  
181 X<=Y?  
182 GTO 00  
183 LBL 01  
184 FC? 17  
185 GTO J  
186 GTO 08  
187 LBL 00  
188 RCL 08  
189 ABS  
190 2  
191 X<Y?  
192 GTO 02  
193 RCL 09  
194 700  
195 X>Y?  
196 GTO C  
197 LBL 02  
198 RCL 01  
199 X#0?  
200 GTO 00  
201 RCL 08  
202 ST+ 02  
203 SF 16  
204 GTO 01  
205 LBL 00  
206 RCL 08  
207 XEQ 18

208 \*  
209 ST+ 02  
210 ABS  
211 .1  
212 \*  
213 3  
214 X>Y?  
215 X<>Y  
216 ST- 05  
217 LBL 01  
218 1  
219 RCL 09  
220 RCL 10  
221 /  
222 6  
223 X>Y?  
224 GTO 01  
225 70  
226 RCL 05  
227 X>Y?  
228 GTO 00  
229 FC? 17  
230 GTO J  
231 LBL 00  
232 RDN  
233 LBL 01  
234 RDN  
235 X>Y?  
236 GTO 00  
237 RCL 09  
238 LOG  
239 GTO 01  
240 LBL 00  
241 5  
242 +  
243 2  
244 /  
245 LBL 01  
246 RCL 01  
247 -  
248 SIGN  
249 LASTX  
250 ABS  
251 3  
252 X<Y?  
253 X<>Y  
254 RDN  
255 \*  
256 FS?C 16  
257 GTO 00  
258 RCL 08  
259 ABS  
260 9  
261 X<Y?  
262 SF 16  
263 RCL Z  
264 -1  
265 FS?C 16  
266 X>Y?  
267 X<>Y  
268 LBL 00  
269 RCL 02  
270 GTO 00  
271 LBL 06  
272 PSE  
273 "C'MD? "  
274 ARCL 18  
275 AVIEW  
276 TONE P  
277 PSE

```

278 "WARP ^ \0D?" ;0D hex = angle sign
279 AVIEW
280 FC? 06
281 STOP
282 PSE
283 FC? 07
284 PSE
285 FS?C 22
286 GTO 00
287 DSE 18
288 GTO 06
289 GTO 08
290 LBL 00
291 X<>Y
292 CF 19
293 XEQ 17
294 RDN
295 SIGN
296 LASTX
297 ABS
298 5
299 X<>Y
300 *
301 ST- 05
302 CLX
303 LASTX
304 3
305 X<Y?
306 X<>Y
307 RDN
308 *
309 P-R
310 RCL 02
311 RCL 01
312 P-R
313 ST+ Z
314 RDN
315 ST+ Z
316 RDN
317 R-P
318 8
319 X<Y?
320 X<>Y
321 RDN
322 FS? 03
323 FC? 05
324 RND
325 STO 01
326 ABS
327 1
328 X>Y?
329 SF 19
330 RCL Z
331 FC? 05
332 RND
333 STO 02
334 ABS
335 X<Y?
336 SF 19
337 GTO 00
338 LBL A      ;Shield/Phaser Routine
339 FC?C 00
340 SF 00
341 XEQ 17
342 RCL 06
343 ST- 06
344 RCL 07
345 ST- 07
346 +
347 XEQ 02

```

```
348 GTO 05
349 LBL 07
350 "DISABLED"
351 AVIEW
352 TONE b
353 PSE
354 LBL B      ;Coast Routine
355 LBL 08
356 XEQ 17
357 LBL 00
358 RCL 02
359 RCL 01
360 3
361 FS? 01
362 LN
363 Y^X
364 P-R
365 RCL 04
366 RCL 03
367 ST+ Z
368 RDN
369 ST+ Z
370 RDN
371 STO 03
372 RDN
373 STO 04
374 RCL 15
375 X<=0?
376 SF 18
377 X<=0?
378 GTO 00
379 RCL 05
380 X<=0?
381 SF 18
382 X<=0?
383 GTO 04
384 25
385 X>Y?
386 SF 01
387 DSE 18
388 GTO 12
389 LBL 00
390 SF 16
391 LBL 09
392 7
393 LBL 10
394 STO Y
395 10
396 +
397 RCL IND Y
398 X<> IND Y
399 STO IND Z
400 RCL Z
401 DSE X
402 GTO 10
403 FS?C 00
404 1
405 FS?C 08
406 SF 00
407 X>0?
408 SF 08
409 CLX
410 FS?C 01
411 1
412 FS?C 09
413 SF 01
414 X>0?
415 SF 09
416 CLX
417 FS?C 02
```

418 1  
419 FS?C 10  
420 SF 02  
421 X>0?  
422 SF 10  
423 CF 15  
424 CF 17  
425 CF 19  
426 FC?C 03  
427 SF 03  
428 RCL 05  
429 25  
430 X>Y?  
431 SF 01  
432 LBL 11  
433 RCL 05  
434 LBL 02  
435 FS?C 03  
436 20  
437 FC? 03  
438 60  
439 %  
440 -  
441 LASTX  
442 FC? 00  
443 X<>Y  
444 ST+ 06  
445 X<>Y  
446 ST+ 07  
447 RCL 07  
448 RCL 10  
449 -  
450 X<=0?  
451 CLX  
452 ST- 07  
453 ST+ 06  
454 RCL 06  
455 RCL 10  
456 -  
457 X<=0?  
458 CLX  
459 ST- 06  
460 FC? 16  
461 RTN  
462 LBL 12  
463 RCL 02  
464 RCL 13  
465 RCL 03  
466 -  
467 P-R  
468 RCL 14  
469 RCL 04  
470 -  
471 RCL 02  
472 X<>Y  
473 P-R  
474 RDN  
475 +  
476 RDN  
477 -  
478 R^  
479 R-P  
480 STO 09  
481 2 E3  
482 X<=Y?  
483 FACT  
484 RCL Z  
485 FC? 05  
486 RND  
487 STO 08

```

488 FS?C 16
489 GTO 04
490 GTO 05
491 LBL c      ;Double Photon Torpedo Routine
492 SF 11
493 LBL C      ;Single Photon Torpedo Routine
494 "PHOTON"
495 AVIEW
496 RCL 09
497 FS? 01
498 .
499 RCL 10
500 FC? 02
501 X>Y?
502 GTO 07
503 8
504 "\29\7F"   ;right paren, append sign (lazy T)
505 SF 25
506 AVIEW
507 TONE 70
508 TONE 25
509 ASIN
510 LBL 13
511 DSE X
512 GTO 13
513 RCL 09
514 CHS
515 E3
516 /
517 1
518 +
519 RCL 08
520 ABS
521 -.2
522 *
523 1
524 +
525 *
526 6
527 ST- 05
528 X^2
529 GTO 00
530 LBL d      ;Double Phaser Blast Routine
531 SF 20
532 LBL D      ;Single Phaser Blast Routine
533 "PHASER"
534 AVIEW
535 RCL 08
536 ABS
537 -.1
538 *
539 1
540 +
541 1
542 RCL 09
543 FC? 02
544 X<Y?
545 GTO 07
546 200
547 X<Y?
548 GTO 07
549 /
550 CHS
551 +
552 RCL 07
553 X<=0?
554 GTO 07
555 10
556 X>Y?
557 X<>Y

```



```

558 ST- 07
559 STO Y
560 INT
561 LBL 14
562 TONE 89
563 DSE X
564 GTO 14
565 CLX
566 PI
567 *
568 *
569 LBL 00
570 FS?C 15
571 ST+ X
572 GTO 01
573 LBL E      ;Beaming Routine
574 RCL 09
575 9
576 X<Y?
577 GTO 07
578 TONE 89
579 TONE 70
580 TONE 89
581 TONE 70
582 TONE 89
583 TONE 70
584 "\60"      ;60 hex = head & torso
585 AVIEW
586 "\06"      ;06 hex = head & torso & 1 leg
587 AVIEW
588 "\04"      ;04 hex = head & torso & 2 legs
589 AVIEW
590 "\05"      ;05 hex = head & torso & 2 legs & 1 arm
591 AVIEW
592 "\01"      ;01 hex = full man character
593 AVIEW
594 PSE
595 XEQ 18
596 *
597 RND
598 VIEW X
599 ST- 05
600 XEQ 18
601 70
602 LBL 01
603 *
604 CHS
605 X>0?
606 CLX
607 ST+ 16
608 RCL 16
609 X<0?
610 ST+ 15
611 X<0?
612 ST- 16
613 RDN
614 RND
615 CLA
616 ARCL X
617 >"-"      ;Append 1 dash
618 AVIEW
619 AVIEW
620 AVIEW
621 TONE 1
622 TONE Z
623 FS?C 11
624 GTO C
625 FS?C 20
626 GTO D
627 GTO 08

```

```

628 LBL I      ;Attack/Disengage Routine
629 "ATTACK"
630 FC? 02
631 "DIS'NG"
632 AVIEW
633 FC?C 02
634 SF 02
635 XEQ 18
636 CHS
637 ST* 02
638 FC? 03
639 GTO A
640 GTO 08
641 LBL J      ;Repair Routine
642 SF 17
643 "REPAIR"
644 AVIEW
645 XEQ 18
646 .3
647 X>Y?
648 X<>Y
649 .05
650 X<Y?
651 X<>Y
652 RCL 07
653 X<=0?
654 GTO 07
655 ST- 07
656 *
657 >" "      ;Append 1 space
658 ARCL X
659 AVIEW
660 RCL 05
661 +
662 RCL 10
663 X>Y?
664 X<>Y
665 STO 05
666 25
667 X<Y?
668 CF 01
669 GTO 08
670 LBL 17
671 "]"-\28"   ;Right bracket, dash, left paren = Klingon Warship
672 FS? 03
673 "]" :-\02" ;Right bracket, colon, dash, boxed star = Enterprise
674 AVIEW
675 2
676 ST- 18
677 SF 25
678 ASIN
679 RTN
680 LBL 18
681 RCL 00
682 R-D
683 FRC
684 STO 00
685 END

```

0463C000F70032445452454BF43C0080009A7EF4534545448E  
8A66A80461306864A8051246A80644A8071B12353A3F04E000  
1118E0001242AD056E3176695DAD056E32225272534E337534  
AD03BD00E0000BE00009A810B40005FA454E54455250524953  
45AD03F74B4C494E474F4E7EAC03B1009F309F009F2AB20001  
9F479F579F0802AA121DF13F892511114C6E9112CF6D971206  
9F59AC03B100AC07B30001A916F4454E473D9B057E89F55348  
4C443D9B067E89F350483D9B077E89F2563D216E9B73F47F20  
0D3D226E9B737E89F20D3D286EAD04AD139B737E8987292A42  
6E2A429B73AD04AD06B200AC03AD0AB1008701AC028702F47F  
204B4D7EAD03AC04B7000313102545B100AD02D0006EB20001  
11286146A80F192945B100AD0FD0006A01AD02B10025141546  
D0006EB200012A44B100741546B100AD11D00069B300012514  
1046B10002AD11D0006FB9000128611244B3002917101045D0  
0068032163B100289202A810B2000128E00012429202611A11  
4213457193050211292A431645B20017102545B100AD11D000  
6F0175027545B1002956B20001154012430221417A76611344  
717542AA10B10028611944A81090711C11AA1045710122B100  
0789F643274D443F209B127E9F7889F957415250205E200D3F  
7EAD068489AD0789AA16B1009712B700B9000171A913E00011  
757A76611571429305777613447175424E22214E9271759271  
754F18447175AC03AD056E31611145A8139071AD056E326144  
A813B100CF66AB00A800E0001126930627930740E00002B600  
08F844495341424C45447E9F7C89CF6709E0001101222113AC  
0150534E24239271759271753375342F7BA8127BB100257BA8  
127BB500121545A8019712BD0001A8100A170B917211104090  
F2CEF291F190719773BB00AA0011AA08A80064A80877AA0111  
AA09A80164A80977AA0211AA0AA80264A80AA90FA911A913AB  
03A80325121545A8010C2503AA031210AD0316104C4176AD00  
719206719207272A417B7793079206262A417B779306AD1085  
0D222D23414E2E244122714E75407541744F39121B13466290  
71AD056E38AA10B500B600CF7DA80BCF68F650484F544F4E7E  
29AC011A2AAD0245B80018F2297FA8197E9F469F195C0E9773  
BE0029541B1343114028611C1A124211404216930551B100CF  
7EA814CF69F65048415345527E28611C1A114211401129AD02  
44B80012101044B800435440277BB800111045719307917268  
0F9F599773BF007772424201AA0F9273B200CF6A291944B800  
9F599F469F599F469F599F46F1607EF1067EF1047EF1057EF1  
017E89E00012426E98739305E0001217100242546477921090  
1066920F669310756E879B73F27F2D7E7E7E9F019F71AA0BD0  
0068AA14D00069B900CF6EF641545441434BAD02F644495327  
4E477EAB02A802E00012549402AD03D00066B900CF6FA811F6  
5245504149527EE000121A1345711A10154471277BB8009307  
42F27F209B737E25402A457135121544A901B900CF11F35D2D  
28AC03F45D3A2D027E129312A8195C85CF12206B6930C0000D  
48

1123 BYTES

HP-41C 2D Trek Program by J. Dennis Green V8 N5 P28 July 1981

Program Registers Needed: 161

Row 1 (1 - 2)



Row 2 (2 - 8)



# HP-41C 2D Trek Program by J. Dennis Green V8 N5 P28 July 1981

Row 3 (8 - 18)



Row 4 (18 - 26)



Row 5 (26 - 36)



Row 6 (37 - 47)



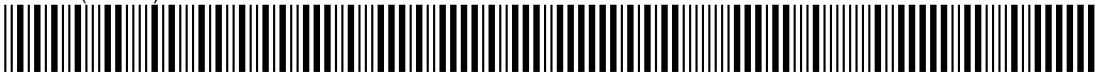
Row 7 (47 - 52)



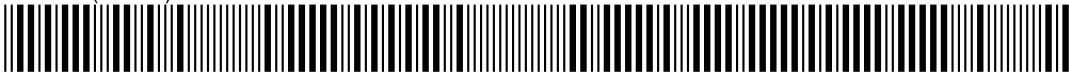
Row 8 (52 - 54)



Row 9 (54 - 59)



Row 10 (59 - 66)



Row 11 (67 - 74)



Row 12 (75 - 81)



Row 13 (82 - 87)



Row 14 (88 - 93)



Row 15 (93 - 100)



Row 16 (101 - 107)



Row 17 (107 - 116)



Row 18 (117 - 125)

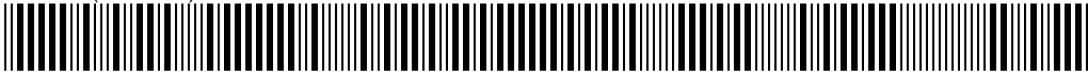


Row 19 (126 - 134)



# HP-41C 2D Trek Program by J. Dennis Green V8 N5 P28 July 1981

Row 20 (134 - 140)



Row 21 (140 - 147)



Row 22 (148 - 157)



Row 23 (158 - 165)



Row 24 (165 - 174)



Row 25 (174 - 181)



Row 26 (182 - 189)



Row 27 (190 - 197)



Row 28 (198 - 206)



Row 29 (207 - 215)



Row 30 (216 - 225)



Row 31 (226 - 234)



Row 32 (235 - 245)



Row 33 (246 - 257)



Row 34 (257 - 265)



Row 35 (266 - 273)



Row 36 (273 - 278)



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Row 37 (278 - 284)



Row 38 (285 - 292)



Row 39 (292 - 301)



Row 40 (302 - 313)



Row 41 (314 - 323)



Row 42 (324 - 333)



Row 43 (334 - 341)



Row 44 (341 - 348)



Row 45 (348 - 352)



Row 46 (352 - 361)



Row 47 (361 - 371)



Row 48 (372 - 381)



Row 49 (382 - 389)



Row 50 (390 - 398)



Row 51 (398 - 405)



Row 52 (405 - 413)



Row 53 (413 - 421)



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Row 54 (422 - 428)



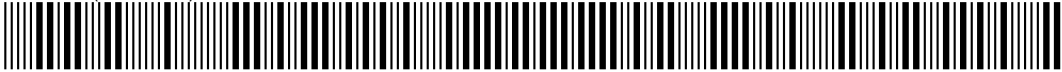
Row 55 (429 - 437)



Row 56 (437 - 446)



Row 57 (446 - 456)



Row 58 (457 - 467)



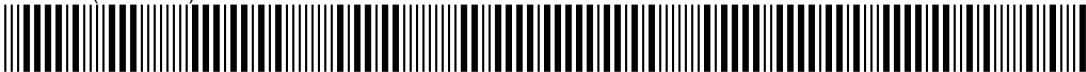
Row 59 (468 - 480)



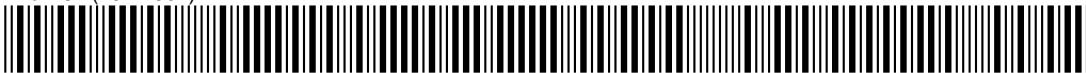
Row 60 (481 - 488)



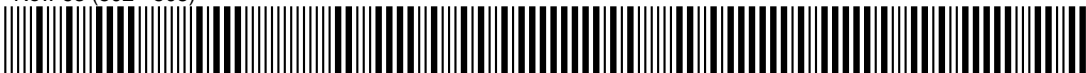
Row 61 (489 - 494)



Row 62 (494 - 501)



Row 63 (502 - 508)



Row 64 (509 - 518)



Row 65 (519 - 528)



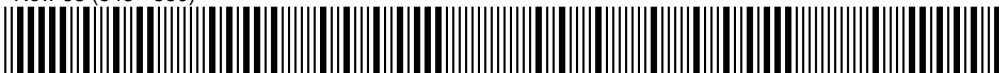
Row 66 (529 - 533)



Row 67 (533 - 542)



Row 68 (543 - 550)



Row 69 (551 - 559)



Row 70 (560 - 569)



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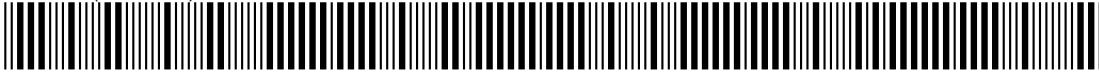
Row 71 (570 - 577)



Row 72 (578 - 584)



Row 73 (584 - 592)



Row 74 (593 - 600)



Row 75 (600 - 609)



Row 76 (610 - 617)



Row 77 (618 - 625)



Row 78 (625 - 629)



Row 79 (629 - 633)



Row 80 (633 - 639)



Row 81 (639 - 643)



Row 82 (643 - 650)



Row 83 (651 - 658)



Row 84 (659 - 669)



Row 85 (669 - 673)



Row 86 (673 - 682)



Row 87 (683 - 685)

