## Grand Master

With Little House


Made in Asia, purchased 2007.
(felt lined wood tray and 10 wood pieces, 8 by 8.5 by 1 inches)
The directions show Red Donkey (Version C) and some other problems including Little House.


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## A Solution to Little House

Here is every 8th move of a solution to Little House of 250 straight-line moves, which can be converted to 233 rectilinear moves by combining 7/8, 41/42, 64/65, 75/76, 87/88, 91/92, 94/95, 118/119, 128/129, 134/135, 138/139, 165/166, 189/190, 192/193, 196/197, 208/209, 220/221. Positions 18 and 21 are also shown; by replacing moves 19 to 21 by two rectilinear moves, a solution results that is minimal for the straight-line and unit metrics, and only one move longer than a minimal 231 rectilinear moves solution (see the following page):


Little House
(Pierre-Francois Culand)

| \#0: | \#8: | \#16: | \#18: | \#21: | \#24: | \#32: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M X X | 1 X X | $1 \times \mathrm{x} 2$ | $\mathrm{X} \times 2$ | $\mathrm{x} \times 23$ | $\mathrm{x} \times 23$ | $\mathrm{X} \times 3 \mathrm{~N}$ |
| M $1 \times \mathrm{X}$ | M X X | X X 4 | X X | $\mathrm{X} \times 4$ | $\mathrm{XX4} 4$ | $\mathrm{X} \times 2 \mathrm{~N}$ |
| A A N | M A A 2 | A A 3 | $1 \mathrm{~A} A 3$ | 1 A A | 1 A A N | A A 4 |
| B B N 2 | B B N 4 | M B B N | M B B N | M B B N | M B B | 1 M B B |
| C C 34 | C C N 3 | M C C N | M C C N | M C C N | M C C | C C |
| \#40: | \#48: | \#56: | \#64: | \#72: | \#80: | \#88: |
| XX 3 N | $\mathrm{X} \times 3 \mathrm{~N}$ | X X 3 N | M X X 3 | M X X 3 | $\mathrm{X} \times 23$ | 23 A A |
| $\mathrm{X} \times 2 \mathrm{~N}$ | X X 2 N | X X 2 N | M X X 2 | M X X 2 | $\mathrm{X} \times \mathrm{A}$ A | $\mathrm{X} \times 4$ |
| 1 A A | A A B B | M 4 A A | A A N | 4 A | M 4 | XX X |
| M B B | M 4 | M 1 | 41 N | C C N | M C C | $\mathrm{M} C \mathrm{C}$ N |
| M C C 4 | M 1 C C | C C B B | C C B B | B B 1 N | B B | M B B 1 |
| \#96: | \#104: | \#112: | \#120: | \#128: | \#136: | \#144: |
| A A 4 N | A A 4 N | X X A A | X X A A | $\mathrm{X} \times \mathrm{A}$ A | $\mathrm{X} \times \mathrm{A}$ A | A A 43 |
| $3 \times \mathrm{X}$ | $\mathrm{X} \times \mathrm{N}$ | X X 4 N | $\mathrm{X} \times 14$ | $\mathrm{X} \times 4 \mathrm{~N}$ | X X 4 N | X X |
| $2 \times \mathrm{X}$ | $\mathrm{X} \times 1$ | 3 M 1 N | 32 MN | $3 \quad 2 \mathrm{~N}$ | B B 3 | $\mathrm{X} \times \mathrm{B}$ B |
| M C C | 3 M C C | 2 M C C | B B M N | B B M | C C M | C C M N |
| M B B 1 | 2 M B B | B B | C | C C 1 M | 12 M | 12 MN |
| \#152: | \#160: | \#168: | \#176: | \#184: | \#192: | \#200: |
| A A 43 | B B A A | B B A A | 4 M B B | M B B | M B B 1 | M B B 1 |
| B B | 43 M | 4 M N | 3 MAA | M A A | M A A N | M A A N |
| $\mathrm{X} \times \mathrm{M} \mathrm{N}$ | $\mathrm{X} \times \mathrm{M}$ N | 3 M 1 N | $\mathrm{X} \times 1 \mathrm{~N}$ | $4 \times \mathrm{X} 1$ | $4 \times \mathrm{XN}$ | $\mathrm{X} \times 2 \mathrm{~N}$ |
| $\mathrm{X} \times \mathrm{M} \mathrm{N}$ | X X 1 N | XX 2 | $\mathrm{X} \times 2 \mathrm{~N}$ | $3 \times \mathrm{x}$ | $\times \mathrm{X} 2$ | $\mathrm{X} \times \mathrm{C}$ C |
| C C 12 | C C 2 | X X C C | C C | C C 2 N | 3 C C | 43 |
| \#208: | \#216: | \#224: | \#232: | \#240: | \#248: | \#250: |
| B B 1 N | B B | 2 B B | M 2 B B | 2 B B 1 |  |  |
| M A A N | A A N | M A A 1 | M A A 1 | M A A 3 | 3 B B | 3 B B 4 |
| M 2 C C | 2 C C N | M C C N | C C 3 | M C C 4 | A A C C | A A C C |
| X X 4 | M X X | $\mathrm{X} \times \mathrm{N}$ | $\mathrm{X} \times \mathrm{N}$ | X X | M X X | M X X N |
| $\mathrm{X} \times 3$ | M | X X 4 | $\mathrm{X} \times \mathrm{N}$ | X X | M X X | M X |

(one move $=$ slide one piece any number of units in one direction)

## A 231 Rectilinear Moves Solution to Little House

Here is every 7th move of a solution of 231 rectilinear moves solution:

| \#0: | \#7: | \#14: | \#21: | \#28: | \#35: | \#42: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M X X | 1 X X | $1 \times 2$ | X X 42 | $\mathrm{X} \times 2$ | $\mathrm{X} \times 2 \mathrm{~N}$ | $\mathrm{X} \times 2 \mathrm{~N}$ |
| M 1 XX | M X X | M X X 4 | $\mathrm{X} \times 3 \mathrm{~N}$ | $\mathrm{X} \times 4 \mathrm{~N}$ | $\mathrm{X} \times 4 \mathrm{~N}$ | $\mathrm{X} \times 4 \mathrm{~N}$ |
| A A N | MA A 2 | MAA 3 | 1 AAN | A A 3 N | 1 AA 3 | A A B B |
| B B N 2 | B B N 4 | B B N | M B B | 1 M B B | M B B | M 13 |
| C C 34 | C C N 3 | C C N | M C C | M C | M C C | M C C |
| \#49: | \#56: | \#63: | \#70: | \#77: | \#84: | \#91: |
| $\mathrm{X} \times 2 \mathrm{~N}$ | $\mathrm{X} \times 2$ | M X X 2 | X X | X X 42 | 2 A A | A A 3 N |
| XX 4 N | $\mathrm{X} \times 4$ | M X X 4 | X X | X X A A | $\times \mathrm{X} 3$ | $2 \times \mathrm{XN}$ |
| 3 A A | M A A N | 3 A A N | M 3 A A | 3 | $4 \times \mathrm{X}$ | $4 \times \mathrm{X} 1$ |
| M 1 B B | M 31 N | C C 1 N | M C C N | M C C N | M C C N | M C C |
| M C C | C C B B | B B | B B 1 N | M B B 1 | M B B 1 | M B B |
| \#98: | \#105: | \#112: | \#119: | \#126: | \#133: | \#140: |
| A A | $\mathrm{X} \times \mathrm{A}$ A | A A | A A 13 |  | 13 M N | 1 M |
| $\mathrm{X} \times 3 \mathrm{~N}$ | $\mathrm{X} \times 3 \mathrm{~N}$ | X X 1 1 3 | X X M N | A A M N | A A M N | A A 3 M |
| $\mathrm{X} \times 1 \mathrm{~N}$ | 2 M 1 N | $\mathrm{X} \times \mathrm{M} \mathrm{N}$ | $\mathrm{X} \times \mathrm{MN}$ | X X M | X X B B | B B 2 N |
| 2 MCCC | 4 M | 42 MN | B B 42 | $\mathrm{X} \times \mathrm{B}$ B | X X 42 | X X 4 N |
| 4 M B B | B B C C | B B C C | C C | C C 42 | C C | X X C C |
| \#147: | \#154: | \#161: | \#168: | \#175: | \#182: | \#189: |
| A A M | B B A A | 3 BB | 3 M B B | M B B | M B B 1 | B B 1 |
| B B M N | 3 M N | 2 MAA | 2 MAA | M A A N | M A A N | M A A N |
| 231 N | 2 M N | M 1 N | X X 1 | 3 XXN | $\mathrm{X} \times 4 \mathrm{~N}$ | M 4 N |
| $\times \times 4$ | X X 14 | XX 4 N | X X N | 2 XX | X X C C | X X C C |
| X X C C | X X C C | X X C C | C C 4 N | C C | 32 | X X 32 |
| \#196: | \#203: | \#210: | \#217: | \#224: | \#231: |  |
| B B 1 N | A A B B | A A B B | A A B B | B B 32 | 21 |  |
| A A N | M 41 N | M C C 4 | C C 24 | A A 14 | 3 B B 4 |  |
| $4 \quad \mathrm{C}$ C | M C C N |  | 31 | C C | A A C C |  |
| MXX 3 | $\times \mathrm{X} 3$ | XX 3 N | M X X N | M X X N | M X X N |  |
| M X X 2 | $\times \times 2$ | $\times \times 2 \mathrm{~N}$ | M X X N | M X X N | M X X N |  |

(one move $=$ slide one piece any number of units in any number of directions)

