Final Assignment (POSIX)
Communications Protocol

I. TECHNICAL INSTRUCTIONS

General Instructions
Port number used is 6212.

Android Usage Instructions
Android Client will be released in next patch.

Telnet Usage Instructions
```
telnet hostname port
```

Hardware Client Compilation Instructions
```
gcc mazeHardware.c -lusb-1.0 –lpthread –I/usr/include/libusb-1.0
```

Hardware Client Usage Instructions
```
sudo ./a.out hostname port vendorID productID endpoint
```

II. GAME INSTRUCTIONS

Commands
- On *Maze*: Up, Down, Left, Right
- On *Battle*: Scissors, Paper, Stone

Input
- Accepted Keyboard Input: w, a, s, d
- A legend will be printed to specify which keyboard input maps to which command.

Mapping

- e.g.

vote	=	up	down	left	right
legend	=	w	s	a	d

- e.g.

vote	=	scissors	paper	stone
legend	=	a	s	d

GAME EVENTS

Status

- e.g.

status	=	awake
status	=	sleep

Drawing of Maze

```
#########################
# #           #           #
# # ##### # ##### #####
#   #   # #     # #     #
# ###h# # ##### # # # #
# #...# #         #     # #
# #.### ### ######### #
# #.#       #   #       # #
# #.##### ### # ### # #
# #.  # #   # #   #     #
# ### # ### ### # ### #
#   # #   #   # # # # #
##### ### ### ### # # #
#   # #       #     # # #
# ### # ########### # #
#       #           x       #
#########################
```

Maze Legend

Object	Symbol
Walls	#
Unvisited Tiles	space
Visited Tiles	.
Hero's position	h
Boss' position	X

Lives

- Total Lives: Specifies how many clients are connected to the server, e.g. total lives = 2
- Current Lives: Specifies how many connected clients are awake, e.g. current lives = 1

Voting

- Calls players to vote on the available options

  e.g.   vote   =   up   down   left   right

  e.g.   vote   =   scissors   paper   stone

Voting Results

- Individual client votes

  e.g.   client no. 0 voted for left

         client no. 1 voted for right

- Voting outcome

  e.g.   voted   =   left

Events

- Informs players of potion events

  e.g.   event   =   rez potion

             event   =   death potion

States

- Informs players of the current game state

  e.g.   state   =   maze

             state   =   battle

             state   =   boss

BATTLE EVENTS

Health

- e.g.   my health   =   2

             enemy health   =   2