Technical Documentation

Compilation:

1. Change target directory path (PATH\_TO\_MENU\_IMAGE) in draw\_tools.h.
2. Change target ip address (TARGET\_IP) in Makefile.
3. Delete “depend” file if it is in the project directory.
4. Run command “make run”.

Block Scheme:

* ai.h
  + Contains functions that generates ai moves and generates new fruit positions.
  + Depends on snake.h.
* draw\_tools.h
  + Contains functions for drawing to frame buffer.
  + Depends on font\_types.h.
* game.h
  + Contains functions for starting and running a game of Snake.
  + Depends on snake.h, mzapo\_parlcd.h, input\_tools.h, draw\_tools.h, ai.h, rgb\_tools.h, led\_tools.h, score\_tools.h.
* input\_tools.h
  + Contains functions for translating knob movements to change of directions and different user inputs.
  + Depends on mzapo\_parlcd.h, mzapo\_phys.h, mzapo\_regs.h.
* led\_tools.h
  + Contains functions for manipulating the LED stripe.
  + Depends on mzapo\_parlcd.h, mzapo\_phys.h, mzapo\_regs.h.
* rgb\_tools.h
  + Contains functions for manipulating the RGB LEDs.
  + Depends on mzapo\_parlcd.h, mzapo\_phys.h, mzapo\_regs.h.
* score\_tools.h
  + Contains function for updating the score.
  + Depends on draw\_tools.h, snake.h.
* snake.h
  + Contains Snake struct and functions for moving Snake.
  + Depends on draw\_tools.h
* main.c
  + Contains the main functions for the Snake game.
  + Depends on mzapo\_parlcd.h, mzapo\_phys.h, mzapo\_regs.h, draw\_tools.h, led\_tools.h, input\_tools.h, font\_types.h, rgb\_tools.h, game.h.