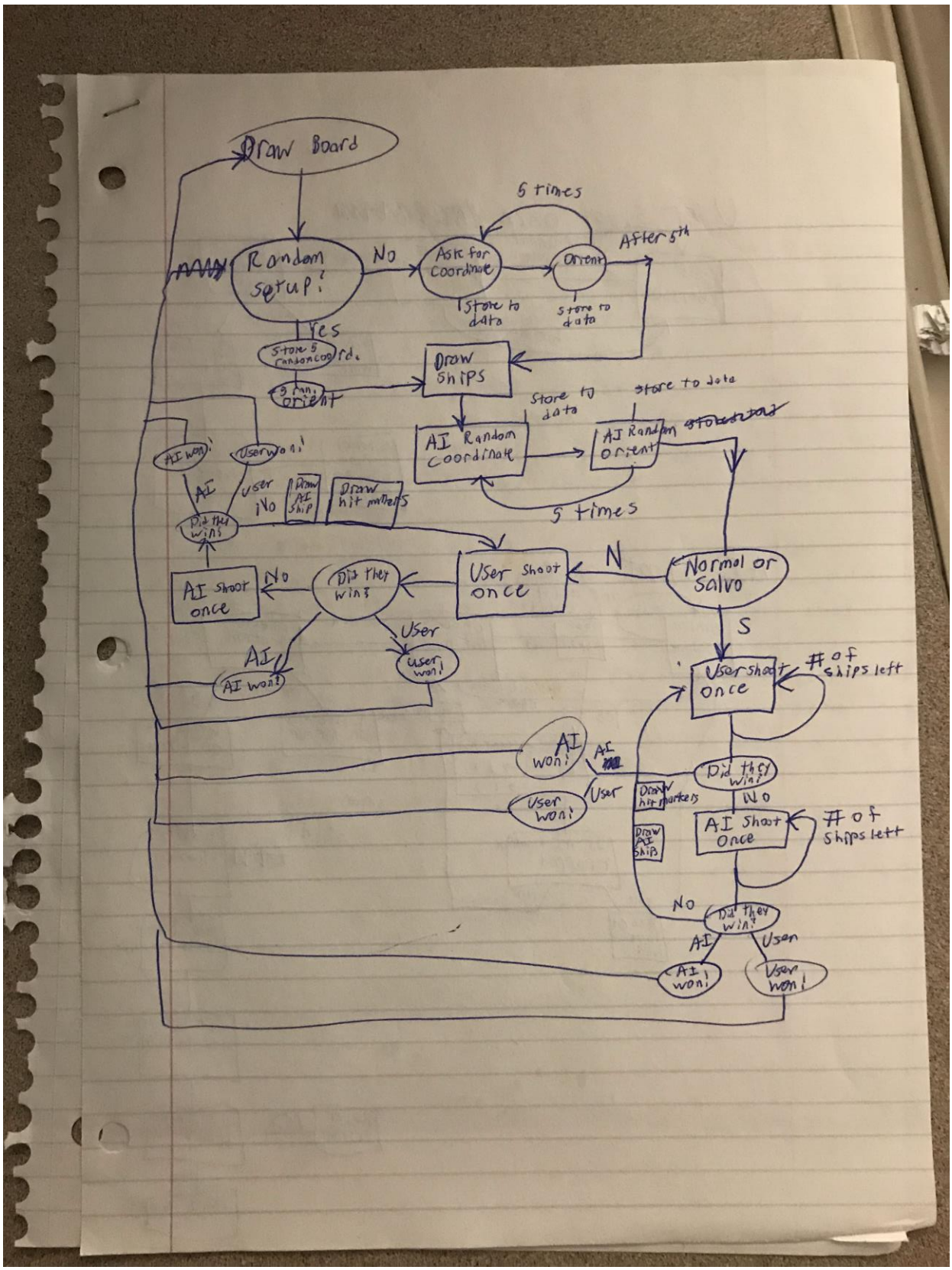
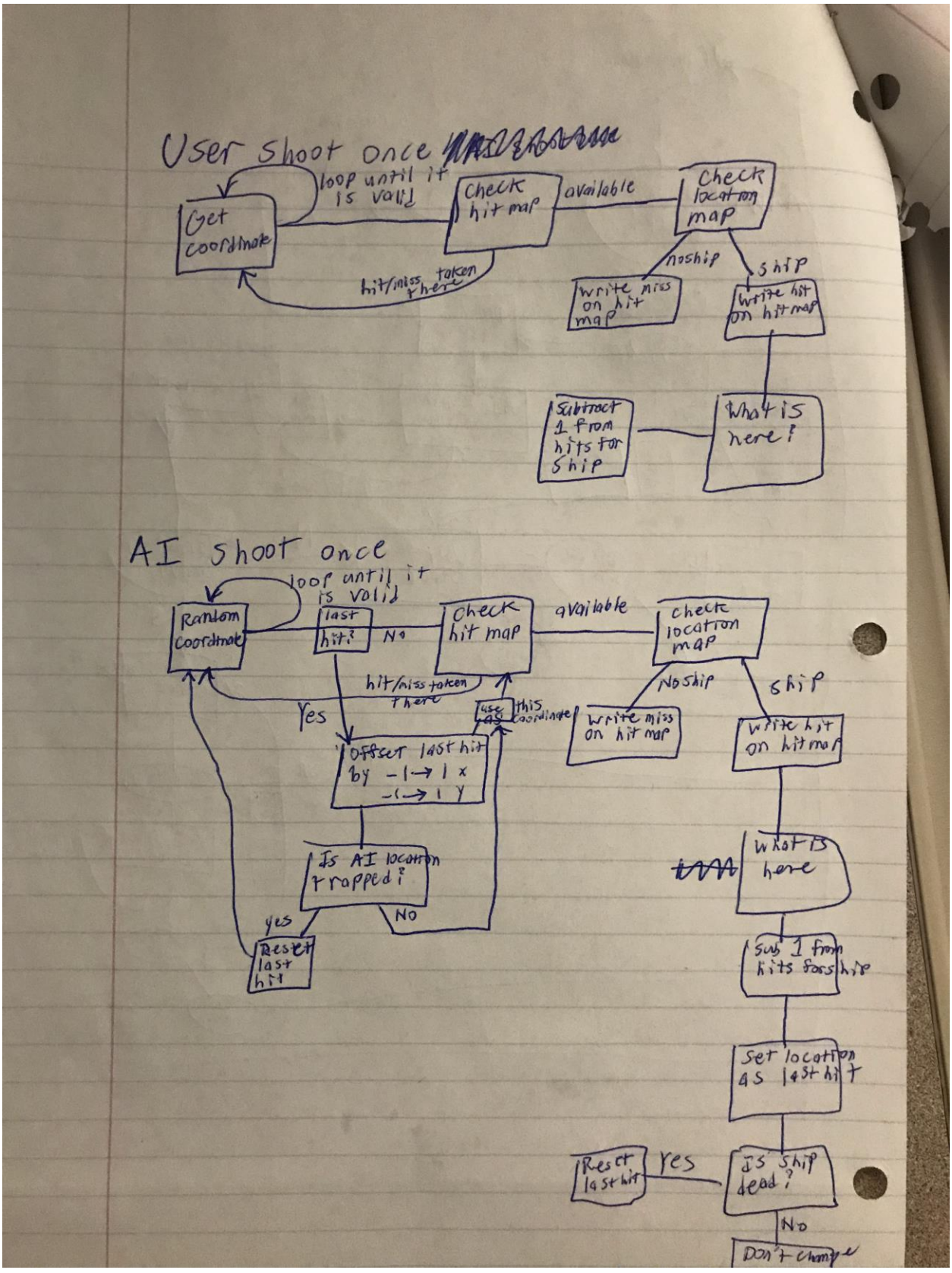

Draw Board
Random setup?
No
Ask for coordinate
Orient
5 times
After 5th
Store to data
Store to data
Yes
Store 5 random coord.
5 ran. orient
Draw Ships
Store to data
Store to data
AI Random coordinate
AI Random orient
5 times
AI won!
User won!
AI
User
No
Draw AI ship
Draw hit markers
Did they win?
AI shoot once
No
Did they win?
User shoot once
N
Normal or Salvo
S
AI
User
AI won!
User won!
User shoot once
# of ships left
AI won!
User won!
AI
User
Did they win?
Draw hit markers
No
AI Shoot Once
# of ships left
Draw AI ships
No
Did they win?
AI
User
AI won!
User won!


User shoot once
Get coordinate
loop until it is valid
Check hit map
available
Check location map
hit/miss taken there
noship
ship
write miss on hit map
write hit on hit map
Subtract 1 from hits for ship
What is here?
AI shoot once
Random coordinate
loop until it is valid
last hit?
No
Check hit map
available
Check location map
hit/miss taken there
Yes
use as this coordinate
noship
ship
write miss on hit map
write hit on hit map
Offset last hit by -1→1 x -1→1 y
Is AI location trapped?
yes
No
Reset last hit
What is here
Sub 1 from hits for ship
Set location as last hit
Reset last hit
yes
Is ship dead?
No
Don't change

divided

The program first draws a board w/ coordinates A-K x axis, & 1-9 y-axis. Then it polls the user for random setup or manual. Manual setup will ask for an upper left coordinate & orientation, & then will add that to ship location data & location map. It will repeat for all ships without overlap. AI ships are drawn w/ random coordinates w/out overlap.

Then the program asks for normal or salvo mode. Salvo is when an entire fleet fires at once, so if chosen the user will give coordinates for each ship's "weapons system" to target, they only get as many shots as ships alive, same goes for AI, but random. Normal mode gets one coordinate from user & one from AI. Shoots on the map, & if it is a hit it is red, if it is a miss it is white. The game ends when one side loses all of its ships.