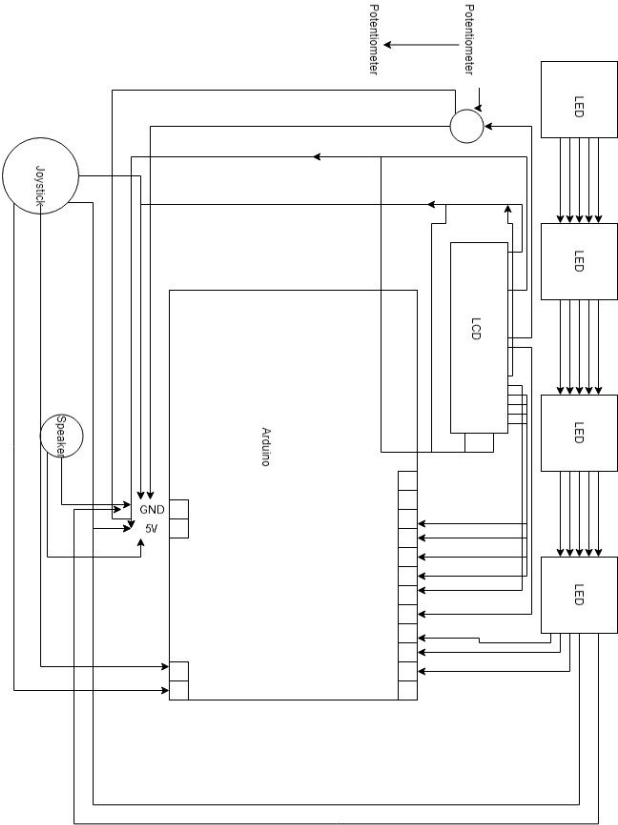
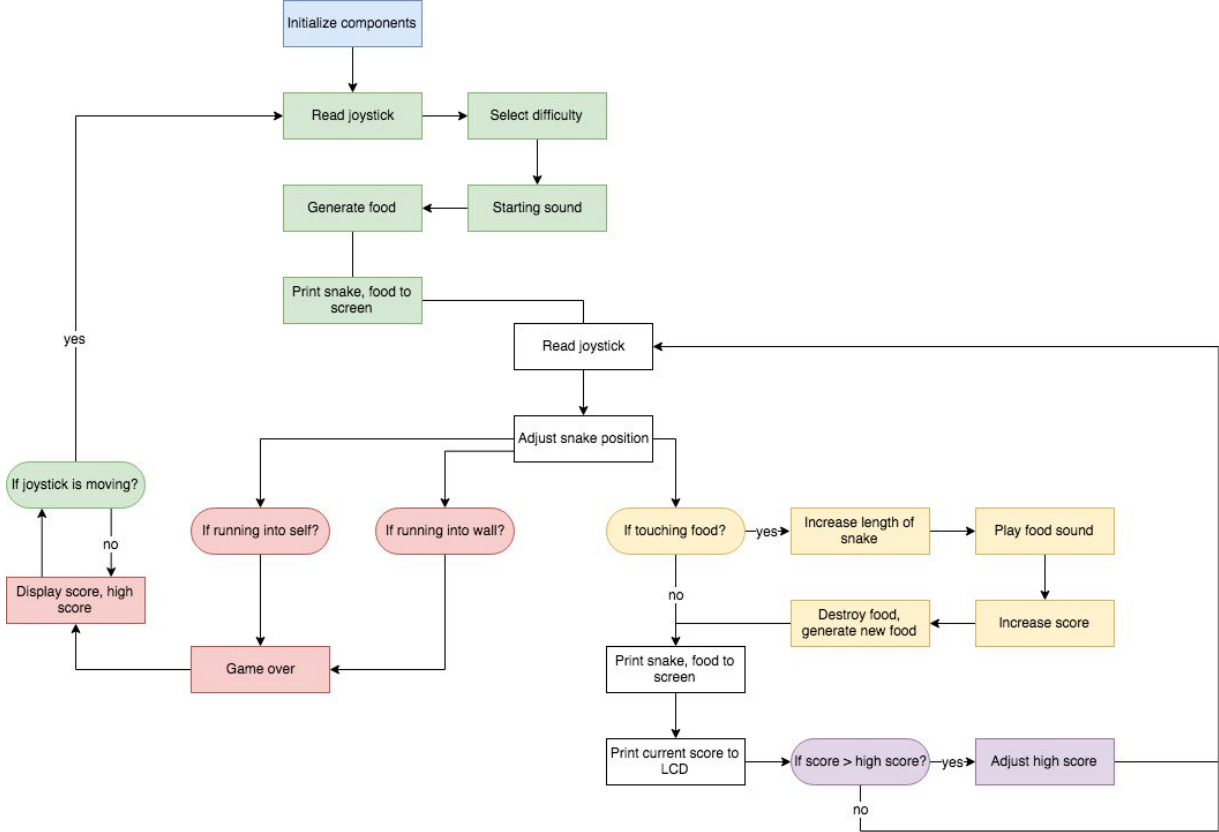
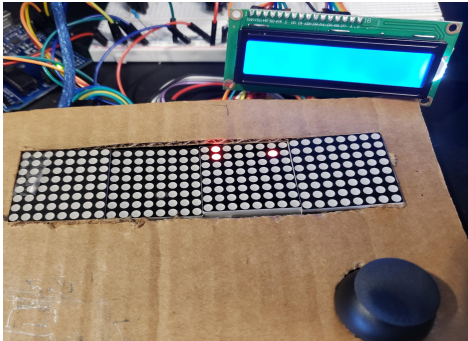


Problem statement	Hardware diagram	Control flow graph	
<p>Create a fully functional snake game powered by an Arduino with 4 LED matrices as a display.</p>			
Product requirements	Components used	The machine	Game mechanics
<ul style="list-style-type: none"> Fully functional snake game powered by an Arduino Uno Fully integrated 4x1 system of 8x8 LED matrices (32x8 window size) Controlled with a joystick Score displayed on an LCD display Sounds for eating food and dying Game can run infinite times and record high scores for 3 difficulties 	<ul style="list-style-type: none"> 1 Elegoo Uno R3 Arduino 4 MAX7219 8x8 LED matrices 1 joystick 1 16x2 LCD display 1 8Ω speaker 1 10kΩ potentiometer 1 220Ω resistor 3D printed frame ∞ cables 		<ul style="list-style-type: none"> 3 different difficulties based on the speed of the game The player controls a 3-light “snake” that gets longer as it consumes food If the snake runs into itself or off the board, the game ends
Roles and responsibilities			
<p>Bella</p> <ul style="list-style-type: none"> Connect parts together Make interface/panel Make hardware diagram <p>Ben</p> <ul style="list-style-type: none"> Write code Design working system Make software diagram 			