

SE Lab Project – Perfectly Normal Adventure

What is it?

“Perfectly Normal Adventure” is a platformer adventure video game that mimics traditional platformer games, except it is full of “normal” surprises! Players can get nostalgic in platformer gaming and enjoy a good laugh after falling into well-designed, hilarious traps set by mischievous developers.

Software Components

- Arduino programming with C/C++
- Implement LCD user interface
- Touch screen input

Prototype Plan

We will choose the horizontal and evolutionary prototype.

We have not completely decided how the game would look like or what features we would include in it, so we would like to explore ideas about how to make our game interesting. Another reason is that since we do not have much experience about game design, the programming part will be a major challenge for us. We have to explore various methods of game development, while applying the appropriate skills for our current project. Therefore, we can familiarize ourselves with all the aspects of game development while practicing Arduino programming by building a horizontal and evolutionary prototype.

Hardware Components

- Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with USB Cable for Arduino
- SainSmart 3.2" TFT LCD Display + Touch Panel + PCB Adapter SD Slot for Arduino 2560 UNO R3

Challenges

- Both people in our team have no previous experience in Arduino programming, thus a major challenge for us is to get familiar with the Arduino Software IDE and the libraries available, especially those related to controlling the LCD display.
- Programming the actual game will be another challenge, as we must figure out how to animate objects, handle events while displaying the game in the LCD.
- Adding creative features into our game could be challenging, as we should design funny and tough obstacles to create an enjoyable experience for the player.