

SE 101 Project Proposal

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Objective:

1. Build a circuit that connects Arduino and an LCD
2. Create a maze game on Arduino and show graphics on an LCD
3. The Player can interact with the game by clicking multiple buttons

Software components:

1. The codes that support the logic behind the interface
2. The game scene rendered on LCD
3. The interactive functions called by the buttons

Prototype plan:

1. We will be following an Evolutionary prototype approach. A prototype with minimal functionality will be made and after initial testing and feedbacks new functionality and improvements will be added.
2. The prototype we develop will be a horizontal prototype as it will provide a broad view focusing on user interactions. While this will not be a complete game but it will still amazingly show how something that once required a full PC is now possible on an Arduino microcontroller.

Hardware acquired:

1. Arduino UNO
2. Arduino kit
3. Nokia 5110 LCD

Challenges:

1. Build feasible circuits with the least electronic components
2. Create clear UI for the LCD screen so the players could understand
3. Code with clear logic so everyone could understand right away