

# The Robots | Functional Specifications

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## What is the project?

This is a geographically based educational game designed to teach 4<sup>th</sup>-8<sup>th</sup> grade students more about the United States of America. Through the use of interactive game play, students will answer questions in order to further their knowledge of U.S. geography in a fun and challenging way.

## Who will be using this project?

The primary users for this game will be students in grades 4<sup>th</sup> through 8<sup>th</sup> grade. However, teachers and parents may preview this game and use it as a supplementary educational tool for their students and children. In addition to these users, older students may utilize this game to enrich their current geography skills.

## What is it supposed to do?

This game is designed to provide an educational experience that offers a fun and unique way for users to learn more about geography.

## Game Objective:

The object of the game is to answer geography questions correctly to get a pig to win the state fair. If you answer questions correctly then your pig gets fatter and you get more points. Answers to the questions will be manifested as balloons that are tethered to a particular state. By answering the right question the balloon will pop and the state will begin to fall. You must maneuver your pig to eat the falling state to gain weight. The more weight you gain, the more points you get. If you get your pig fat enough you win the state fair and also have a chance to enter your score in the “High Score” area.

## Intro Animation

1. Splash page animation that preload the game as well as familiarize the user with the type of game he or she will be playing.

## Intro Screen

1. How to Play: Button that goes to a new screen with all of the necessary information about how to play the game.
2. Start Button: Button that starts gameplay.
3. High Scores: Button that shows all of the previous high scores of all other users.

## Game Interface

1. Game Area
  - a. Balloon Area: Four balloons will be floating in the environment with a state attached to the string. Based on the difficulty level, the state name will or will not appear on the balloon. The four states will act as four multiple choice selections based on the question being asked. Only one of the states will represent the correct answer. The goal of the initial game is to throw a dart at the appropriate balloon in order to feed the pig the correct state.

- b. Pig Area: Once the balloon is popped, the user will control the horizontal position of the pig in order to catch the state that drops from the popped balloon. If you eat the correct state, you will gain weight and subsequently progress farther into the game. If you chose the wrong state a crow will fly down and snatch the state before you can eat it, therefore prohibiting you from progressing.
  - c. Cursor: The cursor will act as a targeting mechanism for throwing darts at the floating balloons.
2. Question Area: One question will appear at a time. The right question will be represented by one of the balloons. Each question will be based on on state. Therefore, there can be a maximum of 50 questions. Based on difficulty, the user will only have to answer a set number of questions to win the game.
3. Score Area: Based on how many correct questions you answer your score will increase or decrease.
4. Navigation. The user will be able to Quit, or access How to Play at any time during the game.

### **You Win / You Lose Screen**

1. You Win: After you answer all the questions correctly you get a chance to enter your score in the “High Scores” area. If you get to the end of the game you are rewarded with a Certificate that your pig is the “Blue Ribbon Winner” of the National County Fair. The user will be able to type in their name on the certificate and print the certificate out. You will also have the opportunity to email this game to a friend.
2. You Lose: If you answer too many questions incorrectly you will get the opportunity to start over. You will also have an opportunity to email this game to a friend.

### **High Score Entry**

Whether a user wins or loses, he or she will have the opportunity to enter their score in the highscore database. If his or her score is high enough, their Initials will appear in the High Score Database.

### **Send to a Friend:**

Users will have the opportunity to enter email addresses into a textfield and send the web address of the game to up to 3 people.

### **Feature Initiative:**

1. Dynamic Content: The games will be xml driven to allow for quick and easy content changes
2. Send to a Friend: Viral content that will allow the game to be distributed among other users.
3. Print Certificate: A printable certificate will be available for users that complete the game that will contain their name, score, and pig.
4. Flash animation (Primary & Secondary): The game will be animation rich with both the interactive elements and the secondary animation in the background.
5. Sound Effects: There will be fitting sound effects to create a richer experience for users that are playing the game.