



THE MINOTAUR'S LABYRINTH

DESIGN DOCUMENT

ALEX COTIGA

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VERSION 0.7

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VERSION HISTORY

Version 0.7 – June 7, 2011

- Updated character sprite sheets and character portraits
- Also gave details on some competing games.

Version 0.6 – May 26, 2011

- Added Additional Character Sprite Sheets

Version 0.5 – May 12, 2011

- Added an image of the maze under the world section.
- Replaced the single-colorations of the Gladiator with a spritesheet with all colorations and animations.

Version 0.4 – May 11, 2011

- Added to reasons why the game is unique.
- Added verbal details & description to the World Overview and World Scale sections.
- Added the first two Gladiator colorations to the characters section.
- Added the first two Gladiator colorations to the Art section as examples of character models.
- Added the initial version of the various wall colorations to the Art section as examples of scenery models.
- Added additional Crazy Ideas.
- Added responses to some of Kelvin's comments.
- Updated ToC.

Version 0.3 – May 5, 2011

- Responded to Kelvin's Comments
- Added Crazy Ideas

- Added Logo to Front Page

Version 0.2 – April 25, 2011

- Added initial Game Overview section.
- Added initial Game Details section.
- Added initial Audience, Platform, and Marketing section.
- Added initial Feature Set section.
- Added initial Game World section.
- Added initial Camera section.
- Added initial Characters section.
- Added initial User Interface section.
- Added initial Objects section.
- Added initial Art section.
- Added initial Game Play section.
- Reformatted the doc to be closer to Kelvin's specs.

Version 0.1 – April 25, 2011

- First version of the document. Doc based on T. Fullerton's template

GAME OVERVIEW

Game logline

Players try to escape the Minotaur's Labyrinth by moving around a self-contained, dynamically changing maze attempting to collect gold and objective flags while hindering the other players' attempts to do the same.

Gameplay synopsis

The Minotaur's Labyrinth is a fast-paced party-style game featuring lots of characters, short rounds, and friendly competition. Advanced players will utilize character abilities to disrupt their opponents' movement in order to keep their own score above their competitors.

GAME DETAILS

Description

Individuals from the nefarious to the enterprising to the desperate have chosen to enter a daring contest combining ancient gladiatorial arenas with a game of luck and skill by entering the Minotaur's Labyrinth. These individuals are gambling with their lives in a struggle through the constantly changing environment of the labyrinth in an attempt to gain rewards including fame, fortune, and freedom. The games consist of several rounds in which the four competitors race to retrieve the objective flags required to win, while hindering their opponents with a variety of obstacles such as heavy crates, oil slicks, and temporary walls, all of which can be purchased between rounds.

Game genre

The Minotaur's Labyrinth plays like similarly to an arcade game but has elements of other genres as well.

Is this single-player or multiplayer game?

The Minotaur's Labyrinth is designed as a competitive multi-player game but supports single-player gameplay via computer controlled opponents.

Is this 2D or 3D?

The Minotaur's Labyrinth is a 2-dimensional game.

Where does the game take place? (world)

The games of the Minotaur's Labyrinth take place, as might be expected, in the Minotaur's labyrinth. As the home of this legendary beast, the Minotaur has spent many years improving the labyrinth and has even taken the whole maze under his control so as to further confuse his victims. He has accomplished this by creating sections of the maze (primarily walls and floors) through which only certain characters can pass and by allowing any and all of the walls to change during the course of the game.

**What do I control? How many characters? Can I use vehicles?**

As players of the Minotaur's Labyrinth, you take control of one of the individuals competing in the games. Currently, there are 12 competitors who have registered for the games, though may more enter in later games. While the Minotaur has taken care to prevent vehicles from entering his labyrinth, he enjoys toying with competitors from all walks of life and so allows anyone to enter his maze.

What is the main focus?

The objective of the Minotaur's Labyrinth is to collect as many objective flags as possible during each round as the competitor with the most flags at the end of the games will receive their desired reward.

How long the game lasts? Or how long game matches last?

The game spans several rounds, each of which lasts between 3 and 10 minutes. Between rounds competitors can purchase items that will allow them to hinder their opponents during subsequent rounds.

Comparison

Other games that would appeal to a similar customer base as the Minotaur's Labyrinth include Mario Kart, Fusion Frenzy, and the mini-games within Super Monkey Ball.

Mario Kart is a racing game whereas Minotaur's Labyrinth is based on competitive maze solving and objective collection. However, the variety of characters resembles that in Mario Kart, the character abilities could be compared to non-random items from Mario Kart, and they both share an air of friendly competition.

Fusion Frenzy is a game based around short rounds of several different mini-games similar to those found in Super Monkey Ball. Minotaur's Labyrinth does not include mini-games thus differentiating itself from those games, though most of the games in Fusion Frenzy and Super Monkey Ball pit players against each other allowing them to hinder or ignore each other in a similar fashion to the Minotaur's Labyrinth.

What is unique?

Competitive Maze Solving is something that is unique to our game. This is combined with fast gameplay and persistent states across rounds to create a fun game for players interested in casual, party, and competitive games.

Why create this game?

There are many possible reasons to create this game, though the primary one that applies in this case are that it is an assignment for school, though the enjoyment during development and the appreciation by the target audience are both additional reasons to develop it.

AUDIENCE, PLATFORM, & MARKETING

Target Audience

The Minotaur's Labyrinth is designed to blend between the quick, casual play styles of games like Mario Kart and the more competitive nature of Super Smash Brothers and Mortal Combat. As such, the game is targeted towards gamers who enjoy casual competition and prefer short, fun matches over extended, in-depth ones.

Platform

The game is intended for consumption on the Xbox 360, though it may also be playable on the PC. We expect that people will purchase the game for a variety of reasons,

including the desire for a casual party game, the want of playing a game of skill and luck against smart opponents, and to support indie developers in making unique games.

Top Performers

- Mario Kart
- Fusion Frenzy
- Super Monkey Ball (mini-games)
- Pokemon Stadium (mini-game mode)
- Super Smash Brothers

Feature comparison

[Compare your game to competition.]

FEATURE SET

General features

- Maze Generation: The Minotaur makes a new maze for each round allowing infinite fun
- Selective Paths: The Minotaur has designed walls through which only some individuals can pass
- Changing Level: The Minotaur changes the maze mid-round to confuse and entrap his victims
- Persistent Rounds: Flags and gold entrants collect persist across rounds adding long-term competition

Multiplayer features

- Compete against the other competitors in the games as you race to collect flags
- Grab gold in the maze to purchase items and hinder your opponents

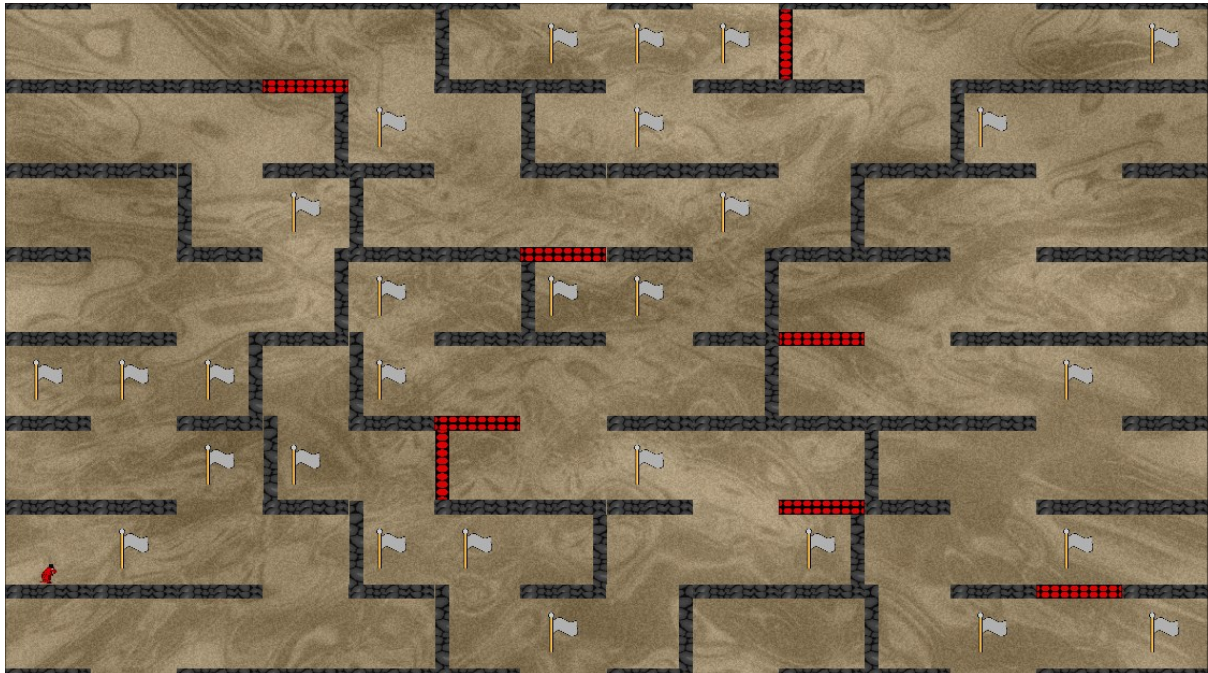
Gameplay

Fast, competitive rounds, changing mazes, and the ability to play to your strengths result in a fun party-style game where you'll never play the same game twice.

GAME WORLD

Overview

The Minotaur's Labyrinth is set within the maze which the Minotaur calls home. He has lived there for such a long time that he has modified the labyrinth until it has become nearly an extension of his personality: Subject to rapid changes according to his mood, different for each round of the games, and always a challenge to navigate. The minotaur's favorite changes are adding and removing walls along with making walls competitor-specific or non-specific. A generic maze with one hero and several objectives is pictured below:



Key locations

Due to the changes the Minotaur makes to the Labyrinth between rounds, different areas will be key in different rounds.

Travel

As the entirety of the games take place in the Labyrinth, the competitors simply run around the maze.

Scale

The world encompasses the whole of the Minotaur's Labyrinth, but since all the action happens in the Labyrinth, no more of the world is included in the game. The Minotaur does not enjoy running through a labyrinth with strange angles that make his head hurt and so makes all his walls align with an axis. He has found that having different sizes of labyrinth provide more or less entertainment with different numbers of competitors. As such, he usually makes 16 sections (columns) and 9 levels (rows) in the maze for games with few competitors and 20 sections (columns) and 11 levels (rows) for games with more competitors. He sizes each section and level of the Labyrinth such that the competitors can jump over each other during the scramble of the games (each is about 2.5-3 times the height and width of a competitor).

Objects

There are a variety of items that the Minotaur may include in the Labyrinth along with some that competitors may purchase between rounds. These include oil slicks, temporary walls, and gold. In every maze, the game organizers place at least one objective flag, and whenever a competitor collects one, the organizers place another.

Weather

People need entertainment regardless of the weather and the games are held to placate the masses, so the games take place regardless of weather.

Day and night

The games in the Minotaur's Labyrinth only take place in the day because the masses would be unable to enjoy the spectacles involved during the night.

CAMERA

Overview

The camera shows all of the Minotaur's Labyrinth and no more. The competitors roam around the maze during the course of the game and all players are visible at all times.

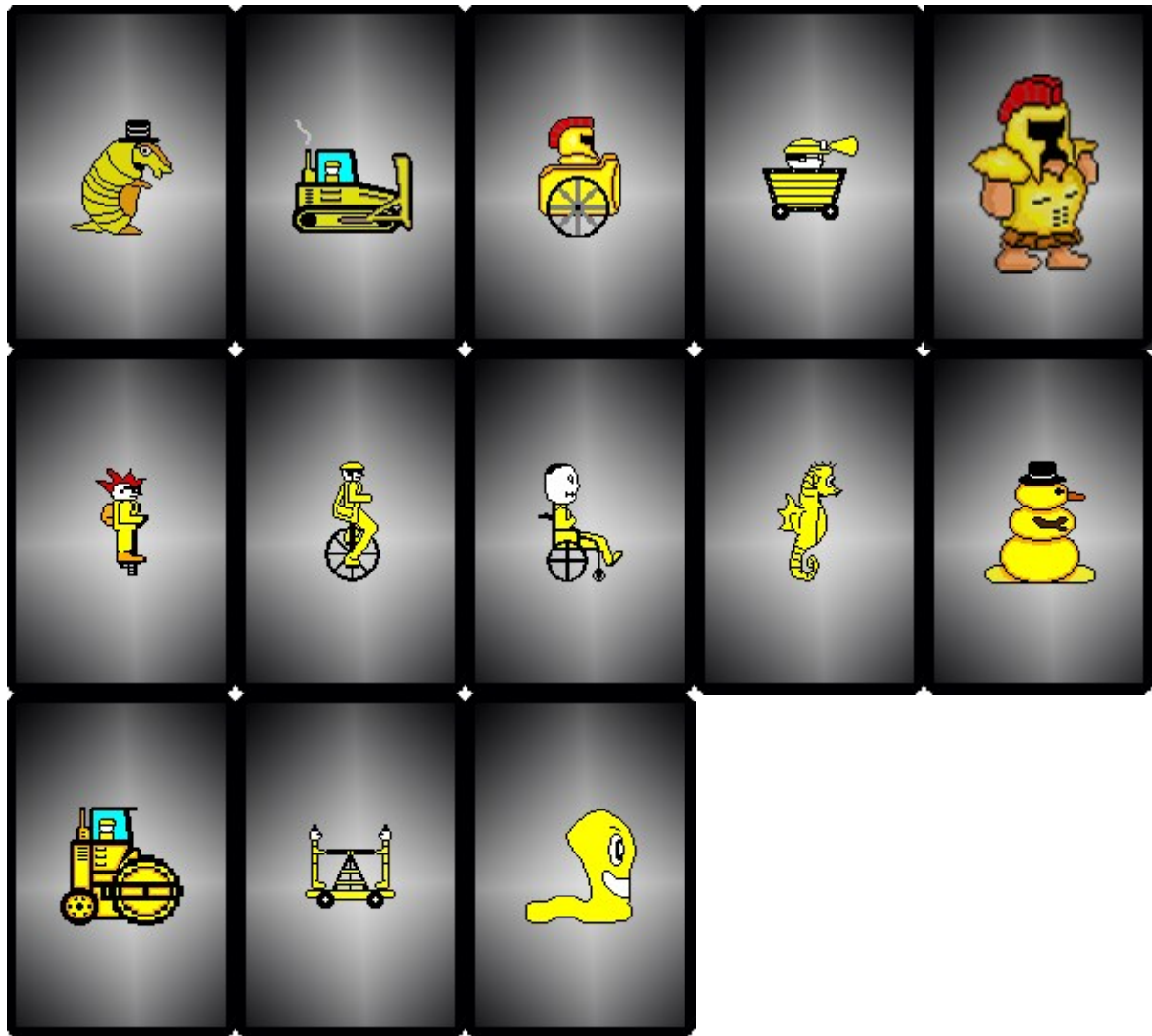
CHARACTERS

Overview

A myriad of individuals participate in the games in the Minotaur's Labyrinth. For now, they are all represented by a generic character, but we hope to add specific competitors from a variety of backgrounds during development. We expect that these characters would have different attributes and abilities to suit their background.

Character Selection

Each player will select the competitor they wish to play as before the games start. Until we add the individual competitors, character selection will be disabled and all players will play as a generic competitor. Some of the playable competitors are pictured below:



Enemies and monsters

The only enemies the competitors face in the Labyrinth are the other competitors. While the competitors are also combating the changes made by the Minotaur, he stays behind the scenes and manipulates the maze, so there is no direct interaction.

USER INTERFACE

Overview

The UI for the game will display information about each competitor in one of the four corners as well as general round information above the middle of the Labyrinth.

Details

There is no static UI in the Minotaur's Labyrinth, instead showing the number of flags each competitor has collected after each flag.

OBJECTS

Overview

There are a variety of objects that competitors may pick up during each round. These include oil slicks, temporary walls, objective flags, and gold.

Weapons

The Minotaur, while having nearly complete control of the Labyrinth, and thus who can or cannot reach him, does not enjoy toying with prey that can hurt him and so does not allow weapons in the Labyrinth.

Items

Items in the Minotaur's Labyrinth take the form of a variety of obstacles which competitors can purchase between rounds and can place during the rounds to hinder their opponents.

MUSIC AND SOUNDS EFFECTS

Overview**Details****Music tracks****Sound effects****Other**

ART

What kind of style will be used in the game?

The art in the Minotaur's Labyrinth will be pixel-based and will incorporate thematic elements from the background for the game. Examples include showing the Minotaur behind the maze, using stone walls with colored detail to indicate which competitors can pass through them, and keeping the icons for the items and their deployed graphics consistent with the medieval, low technology setting.

Sources

We will base the art off art from other sources that are placed in similar settings. We expect a fair portion of the art to incorporate elements of games from the early '90s.

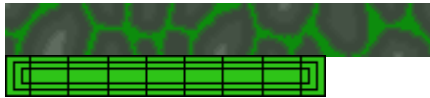
Scenery models

The scenery will consist of the background of the Labyrinth and the walls that make it up. Colorations of the walls that allow different players to pass through are shown below:

Red:



Green:



Blue:



Purple:

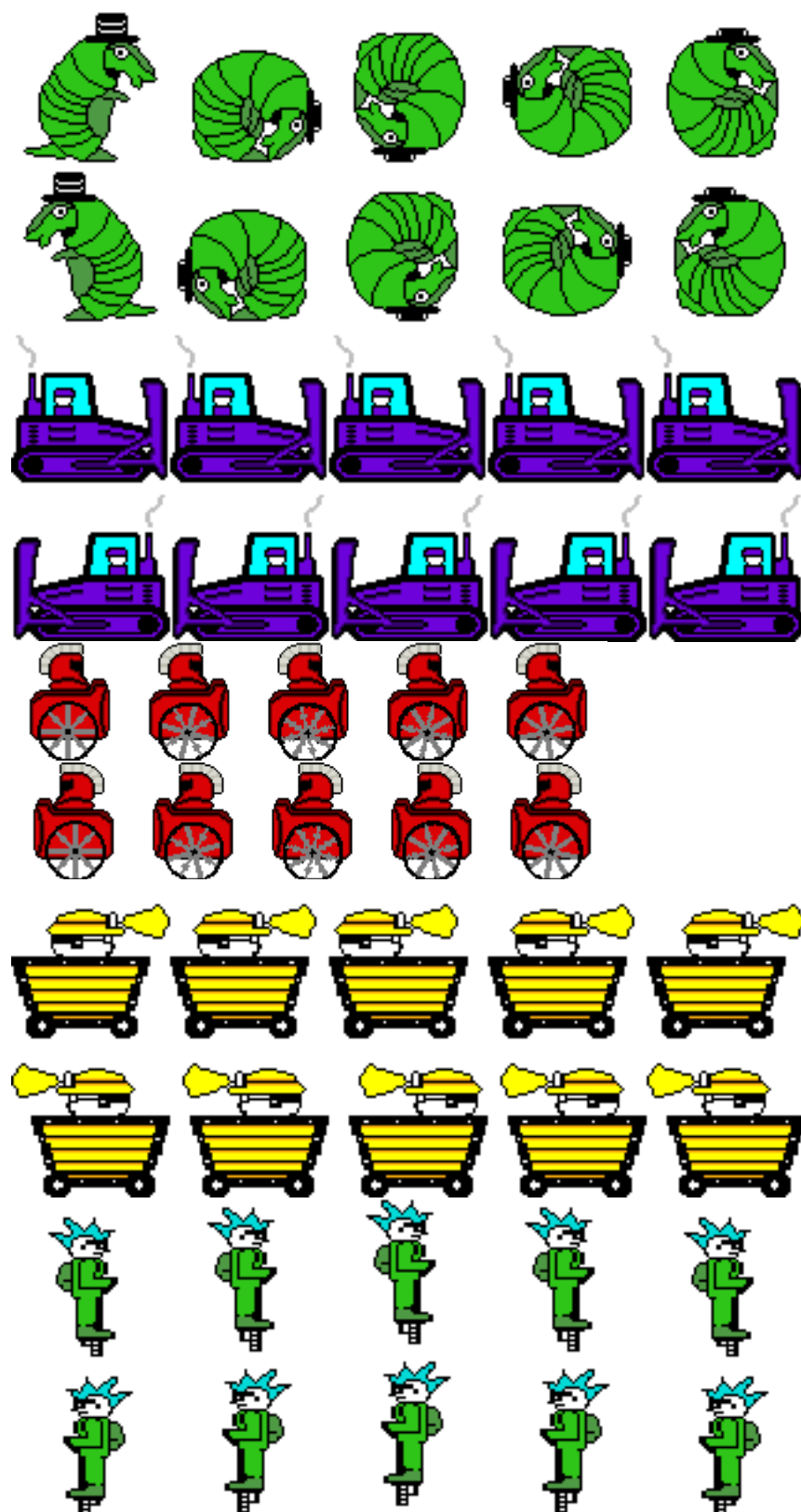


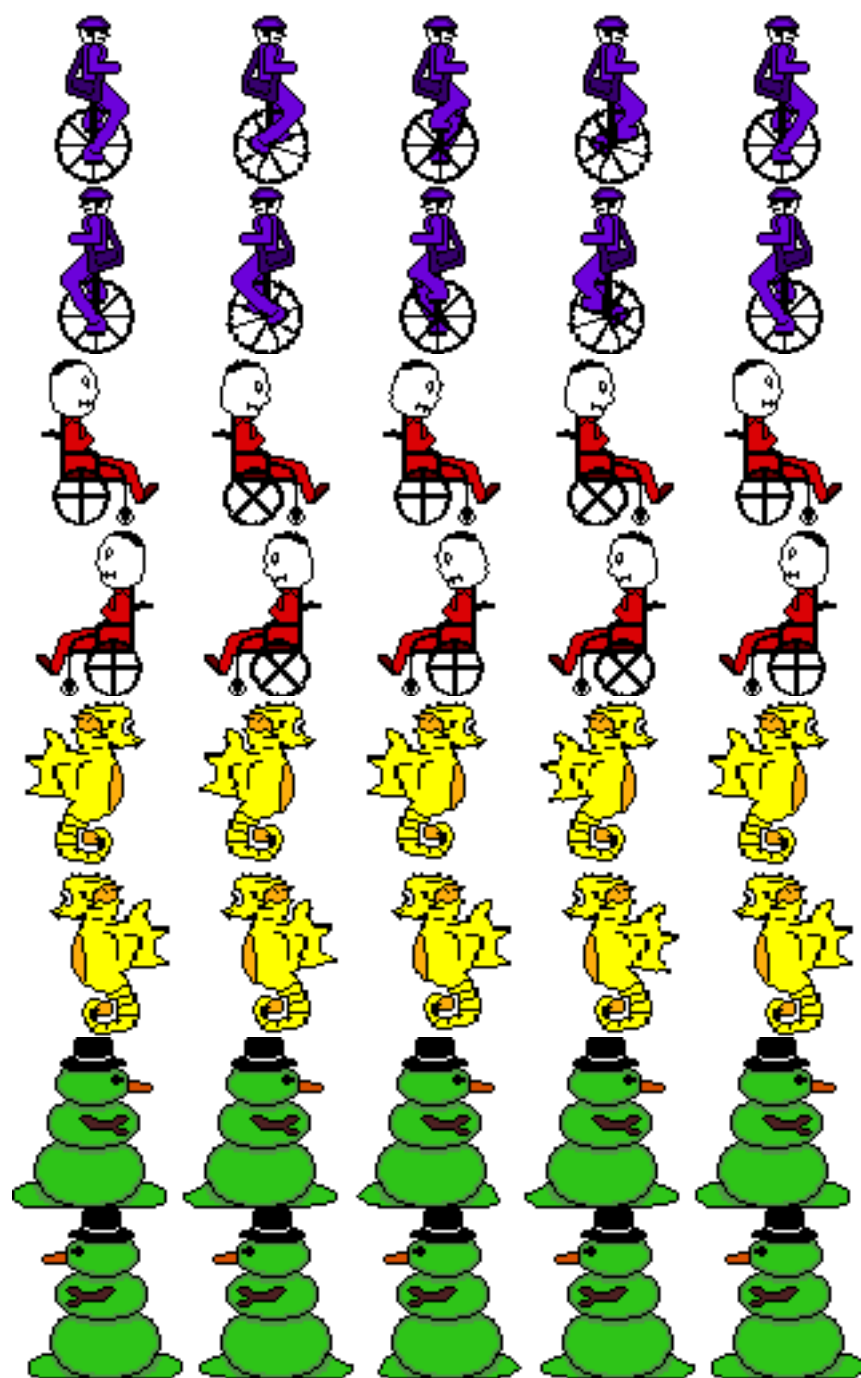
None:

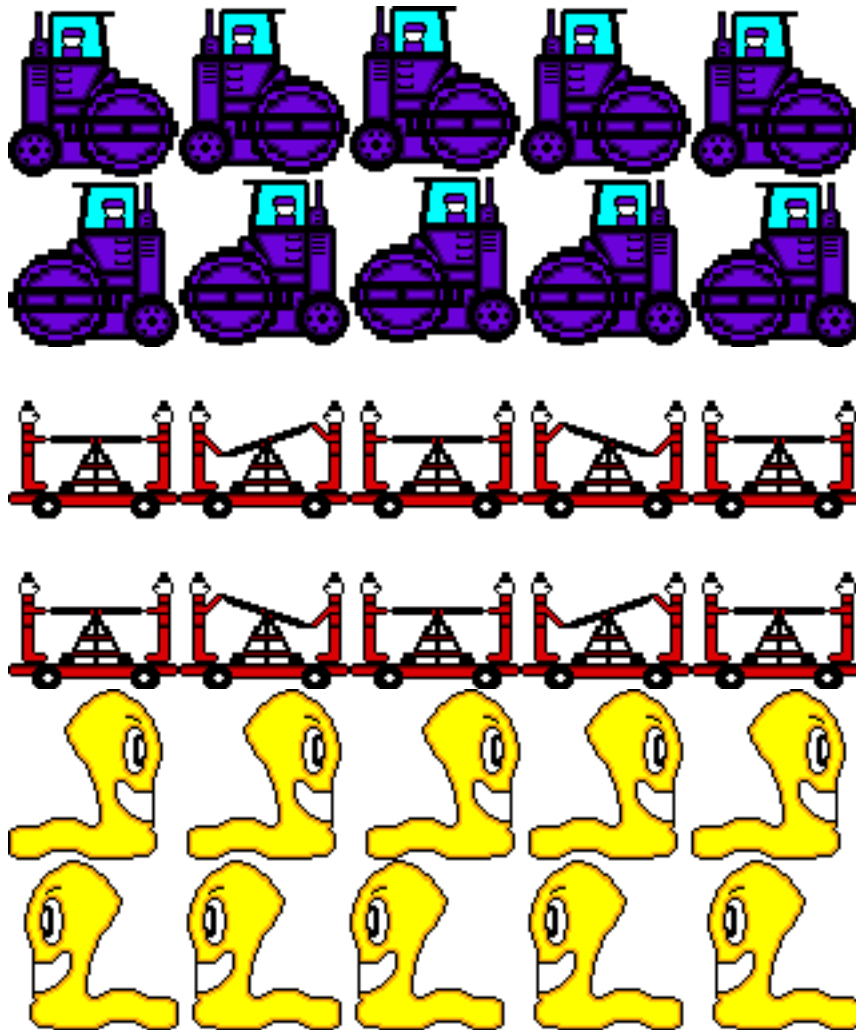


Character models

The characters will be represented with sprites that will change according to the actions they are performing and any adverse effects which they may have encountered (oil slicks, etc). A spritesheet showing the colorations of one of the competitors is shown below as an example:







Particle effects

We may choose to use particles in changing the walls of the Labyrinth and we may also use them in conjunction with some of the competitor-placed obstacles.

GAME PLAY

Overview

To start a game, the players select the number of rounds, length for each round, and possibly other settings that control how the game plays such as how common gold and item pickups are as well as how often the Minotaur changes the labyrinth and how many flags start in the maze. The players then alternate rounds of the games with purchasing items that can be used to hinder their opponents in the later rounds. At the beginning of each round, the total number of flags each competitor has collected is displayed to give the players a feel for how their collection compares to other players. The winner of the

game is determined after the expected number of rounds have been completed by totaling the number of flags each competitor collected over all the rounds.

Max players

Up to 4 players can play the Minotaur's Labyrinth at a time. If less than 4 players are playing at any time, the remaining competitors will be controlled by computer opponents that will surrender control when a player joins the game.

Servers

The game is played on a single Xbox, so no servers are needed.

Customization

Customization of the Minotaur's Labyrinth happens at the beginning of the games by players selecting the number of rounds, length of each round, and other factors that influence the game.

World Persistence

Since the games take place between different entrants each game and the Minotaur modifies the maze between rounds, the world is not persistent. However, the number of flags and amount of gold that each competitor has collected are preserved between rounds.

Saving and loading

The competitors are expected to finish all of the rounds if they expect to win their desired reward, so no saving or loading is necessary.

Scores

The games are composed of several rounds in which competitors collect flags. These flags measure the score the players have accumulated but do not persist between games. We do not expect there to be online scores or ranks, though we may choose to keep track of informational statistics about the players (favorite competitors, number of wins and losses, flags collected, average flags and gold collected per round, etc).

Chatting

The Minotaur's Labyrinth is designed to be played on a single console, thus chatting will happen between players, not through the game. As we do not expect the game to incorporate network games, there is no need for lobbies, or either voice or text chatting.

Clans

While players may form groups to play the game, we don't expect significant networked interaction or play, so there will not be official clans or tribes nor mechanisms to create them.

RESOURCES & LINKS

Links to related resources

Design document based on this template:

[HTTP://FORUMS.XNA.COM/FORUMS/T/229.ASPX](http://forums.xna.com/forums/t/229.aspx)

[HTTP://INDIEPATH.COM/PUBLIC/DESIGNDOCUMENTTEMPLATE01.DOC](http://indiepath.com/public/designdocumenttemplate01.doc)

A few sections of the document are based on the design template in this book:

Fullerton, Tracy. Game Design Workshop, 2nd Edition: Elsevier Inc, 2008.

EXTRA MISCELLANEOUS STUFF

Overview

Crazy ideas

- Unique Abilities for different characters.
- Control Objectives to alter specific key areas of the maze
- 2v2 Team Play
- Cash Store for Between Round item purchases
- Persistent High-Score/Leaderboards
- "Career" scores to reward repeat players
- Character "builds" that give different stats (health, speed, etc), item sets
- Element-based character abilities (ie. fire, water, earth, air)
- (Localized?) Weather that affects all competitor's speed/friction/etc
- Timed global events that change physics, add items, drain health, etc.