KODU MARS - LEVEL 1

***“Simple to control, clear in its message, fun to play.”***

Last Updated

# High Level Player Experience

This level is targeted at placement in a museum, conference or school where only a limited time window is appropriate. In 90 seconds, the player must be able to quickly understand the controls, the objective and directly relate this to the real Curiosity and its mission on Mars. The player will feel like they are exploring Mars and making decisions that count, all towards a bigger high score.

**Key Features:**

* 90 second time span arcade-like game with a focus to get a high score
* Rover abilities reflect Curiosity: Movement over terrain, scanning rocks for signs of life.
* Decision making:
  + With limited number of times to drill, the need to drill only special rocks is paramount.
  + The player must avoid obstacles. Bumping obstacles incurs a time penalty while the Rover moves to a safe position

**Details**

**Audience:** Grades 5-8

**Time Length:** 90 seconds

**Level Type:** Arcade-like game, focused on getting high score

**Layout:** Side-scrolling

**Button layout:**

* Left Stick: closer/father/faster/slower.
* X: “inspect”;
* Y: camera

**Goal:** Goal is to earn the most Scientific Value (points); SV Points are reflected by :

* Each second moving: +1 point
* Inspect generic rock: +1 point
* Inspect ‘special’ rock: +5 points

**Obstacles:** There are a few obstacles:

* Rocks are not easily identifiable; targeting the wrong rock takes time (but still earns points)
* Different land types cause rover to speed up/slow down
* Going too fast may cause rover to miss rocks (to turn around) or take too much time.
* You can only inspect “5” times (to represent the number of drills on the rover). Do you wait to drill?
* There is a 90 second timer which is continually counting down.

**Curriculum:**

* N/A: meant for a museum, conference, or quick play experience.

**Motivation**

* The player is awarded points for inspecting rocks of different types.
* Some rocks provide more points upon inspection and the player will be notified with visual and audio effects that it’s a better rock to scan.
* Armed with this information early, the player navigates the rover in order to inspect the high value rocks and get a high score.

# First Implementation Stage:

**Overview**

* Provide a 90 second experience that entertains and educates
* Limit player control to up and down, however horizontal traversal speed is constantly applied.
* Player is able to ‘bump scan’ 2 different categories of rock
* Different terrain types offer different traversal speeds
* There are a limited number of drill sample chambers
* Scoring
* Laser Scan button

**Design Details:**

**Provide a 90 second experience that entertains and educates**

90 seconds is an approximate timer, a starting point. Player should gain 1 point per second of play. This provides every player a base score of 90 at the end which although is the minimum score, the *perception* of failure for scoring 0 points is greater.

**Entertainment**. The title uses the fun and friendly Kodu styling and can’t help but to be charming. The loop of action and result, and downtime, will be quick and well measured as to require full attention of the player

**Educate**. What the rover is doing on Mars in the game somewhat reflects the real mission. Aspects of learning will be called out where appropriate.

**Interaction:**

The rover is constantly moving along the landscape. The player must choose which rocks to scan and what to avoid. The player will be using the left stick and face buttons to direct the Rover. The player will always be occupied with 1 decision.

**Limit player control to up and down, however horizontal traversal speed is constantly applied.**

Providing an ever present sense of urgency and focus, the player is forced to constantly decide where to go as the rover is always moving. The up and down depth to the side scrolling world adds gameplay over a side-on 2D world.

**Player is able to ‘bump scan’ 2 different types of rock**

Basic feature of the game is that the player scans rocks. Implement a simple system whereby the player character is engaged in an activity for X seconds.

**Scoring**

Avoiding the low scoring rocks will provide a higher score as the player will have more time to get to and scan higher value rocks. The player must see that a high value rock provides a higher score. Scoring is important.

**Limited drill samples**

In line with the real thing, drilling is done sparingly. To reflect this there is only 5 chances to drill. A value must be shown to tell the player how many ‘drills’ they have left.

**Laser Scan**

Laser Scanning is a pre-drill feature. The player can press a button and the Rover will scan 1/many rocks to check the type of rock it is.

# Production Stage: Design Details

**Note:**

The production stage contains additional features based upon our estimation of the results the first implementation will provide. The below features may be amended, deleted or new ones added based on feedback from internal staff and external partners.

**Overview**

* Large obstacles
* Instructions for play and hints
* Camera functionality
* Terrain type affects friction

**Design Details:**

**Large obstacles**

This feature adds navigation to the decisions the player needs to make. If the player navigates the Rover into an obstacle, the rover will automatically stop, back up and maneuver itself into a position where it can continue un-impeded. This takes valuable seconds where the player could be earning points scanning.

**Instructions for play and hints**

Fully enable the level with all instructions and speech-hints to facilitate the projects goals

**Camera functionality**

The player can take a photo of an area. This is a similar to the laser scan in the first implementation phase but covers more ground and faster.

**Terrain types**

Certain terrain types slow the rover further. This includes sand and inclines. By moving slower the player is losing valuable seconds.

**Additional Rock types**

More types of rock can be added to increase the realism and to provide the player with an additional choice.