LASSO GAME (version 1*.*0)

Vedang Dhirendra Asgaonkar 200050154 D1

20 February 2021

# Introduction

This is a Lasso Game developed using C++. You play the role of a Cowboy with a Lasso.

# Instructions:Basics

* The aim of the game is to capture coins using your lasso
* The lasso is the circular loop on the screen
* Coins are launched in random directions from random locations
* Before launching , the lasso can be turned using [ and ] key presses . Also , the Lasso launch speed can be varied between the minimum and maximum . The speed can be increased by pressing = and reduced using - key presses .
* The Lasso can be thrown using T key press
* When the Lasso reaches sufficiently close( 30 pixels ) to the coin , press key L to loop the Lasso around the coin .
* Press Y to yank the lasso back
* The player has 20 lives
* The player looses a life each time the lasso is yanked without looping around a coin or when the lasso touches the ground .
* The game end when lives reach 0 .
* Press Q key to quit .

# Instructions:Advanced

* Coins come in three varieties : gold coins , rocket coins and boomerang coins
* Gold coins are yellow . They show a normal trajectory influenced by gravity . On capturing they increase your coin count by 1 .
* Rocket coins are blue . They fly in one direction in straight lines . On capturing they increase your coin count by 1 and also your rocket lasso count by 1 .
* Boomerang coins are green . They have an additional horizontal acceleration opposite to their horizontal velocity . On capturing they increase your coin count by 1 and your boomerang lasso count by 1 .
* Your lasso has three special tools
* Rocket Lasso : If your rocket lasso count is greater than zero , you can use this tool . Rocket lassos are very high speed lassos and have long ranges . They can be launched by pressing R instead of T while launching . After that the loop and yank procedure is same . If you fail to catch a coin by using a rocket Lasso , your rocket lasso count reduces. The rocket lasso count is increased by capturing rocket coins .
* Boomerang Lasso : If your boomerang lasso count is greater than zero , you can use this tool . Boomerang lassos are capable of coming backwards . This tool can be use during the flight of your lasso by pressing B . Then your lasso begins to move backward . Useful if your lasso overshoots beyond the coin . After that the loop and yank procedure is same . If you fail to catch a coin by using a boomerang Lasso , your boomerang lasso count reduces. The boomerang lasso count is increased by capturing boomerang coins
* Magnetic Lasso : If your magnetic lasso count is greater than zero , you can use this tool . Magnetic lassos are capable of capturing coins at a larger distances(50 pixels) as compared to normal lassos(30 pixels) . This tool can be use during the flight of your lasso by pressing M . After that the loop and yank procedure is same . If you fail to catch a coin by using a magnetic Lasso , your magnetic lasso count reduces. The magnetic lasso count can not be increased .

# High Scores

The score is the total coins you have captured during a game. The high score display at the bottom of the window, shows your high score among all previous game plays. If during the game you create a new high score i.e. exceed the coin count beyond the high score, a new high score is created and stored. Upon creating a new high score the cow boy earns a sheriff batch.

Caution: To make sure your scores are stored, you must close the game by clicking of Q or by finishing of lives. Do not terminate the game by clicking the X sign.

Happy Gaming!

# A Request To The TA

A request to the TA. In the program I have used a .csv file to store high scores. I am providing the file with the code, however I am not sure whether BodhiTree can process .csv files. So I request you to download the files into your computer, keeping the .csv in the same folder and then compile the code and run it *using the command prompt only*. I am also providing a drive link for the video in .m4v format. Please access it using an IITB account.

https://drive.google.com/file/d/1R\_WurmIOpULRdGi30W60cWL3j3YXS6I\_/view?usp=sharing