

README

- How to Control?

1. Using left mouse button to click the play button on the initial screen.
2. Use your **right and left key on your keyboard** to move doodle horizontally.
3. Doodle will jump again and again by itself.
4. Click **left mouse button** to eject a bullet to kill monster on the screen.

- How to Compile?

1. Open Cygwin (with qt5 installed)
2. Enter the following commands step by step,
 - I. `cd /the path of this project`
(differ with every computer)
 - II. `qmake-qt5 -project`
 - III. `qmake-qt5 "QT+=widgets" "QT+=core gui" "QT+=widgets multimedia"`
3. open terminal 2 (another Cygwin window) and enter the following command
 - `startxwin`
4. back to terminal 1
5. Enter the following commands step by step,
 - IV. `make`
 - V. `export DISPLAY=:0.0`
 - VI. `./ F84096192-E64082246`

If you want to play again, please re-enter the steps IV~VI on terminal 1.

- What we had done?

- I. A doodle who can jump and down by itself.

- ✓ jump height = 320 pixels
 - ✓ Jump automatically when landing on a platform.
 - ✓ **Jumping with gravity effect. (bonus)**
 - ✓ Rising until Doodle reaches the jump height, and the rising process passes through and ignores any platform.
 - ✓ Falling until Doodle lands on a platform, then jump again.

- II. Doodle control

- ✓ Control Doodle to shift left or right by keyboard.
 - ✓ Control Doodle to fire bullets and aim targets by mouse (left mouse button).
 - ✓ The fired bullets can kill the monster when bullet shooting on the monster. (with single shot)
 - ✓ When Doodle jump over a half of screen (480 pixels), game's viewpoint follows with Doodle.
 - ✓ No matter how high Doodle jumps or flies, it never jumps out of the screen.
 - ✓ When Doodle leaving one side of the screen, it will immediately reappear on the opposite side, maintaining speed and trajectory.

- III. Platforms

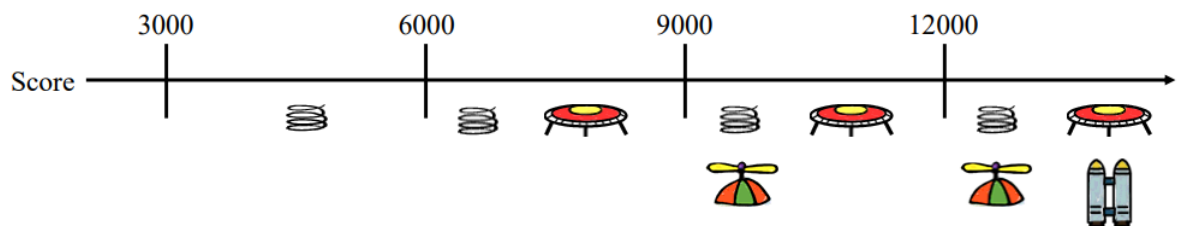
- ✓ Normal platforms (green stair) which will move down when doodle is jumping.
 - ✓ Broken platforms which will be broken (with animation) once doodle jumps on them, and doodle will fall. (During every 1000 scores, broken platform must appear at least once.)
 - ✓ Blue platforms which will move left and right automatically.
+ **Deep blue platform which will move up and down automatically (bonus)** (show after reaching 6000 scores, after showing first time, moving platform must appear at least once during every 3000 scores)
 - ✓ Disappearing platforms which allow to jump once when jumping on them, then they will disappear. (show after reaching 9000 scores, after showing first time, disappearing platform must appear at least once during every 5000 scores)
 - ✓ **Count down platform, which will disappear after 4s since showing on the screen. (bonus)**
 - ✓ **Thorn platform, which may cause doodle to lose 1 HP when falling on it. (bonus)**
 - ✓ Each height has **at most one** platform
 - ✓ The interval between two platforms is 60 ~ 270 pixels.

IV. Monsters

- ✓ 4 types of monsters
- ✓ Loss 1 HP when Doodle touches monster's left, right and bottom part.
- ✓ Doodle can jump on monster's head, monster will be killed and doodle will jump again like landing on a normal platform. (Doodle will not lose HP)
- ✓ The monster will disappear upon death.

V. Items

- ✓ Spring, when landing on it, doodle will jump 960 pixels.
- ✓ Trampoline, when landing on it, doodle will jump 1920 pixels.
- ✓ Propeller hat, when touching it, doodle will fly 3840 pixels.
(Show item effect on Doodle)
- ✓ Jet pack, when touching it, doodle will fly 7680 pixels.
(Show item effect on Doodle)
- ✓ Shield, which can immune damage once.
(Show item effect on Doodle)



VI. Others

- ✓ 3HP of doodle
- ✓ Score = the maximum height that Doodle reached. (Pixel)
- ✓ Game start interface
- ✓ Game over scoreboard
- ✓ Size for all the images used in this project is matched to the requirements
- ✓ Black hole, if doodle touches it, the game will over. (bonus)