1. UML diagram

MainWindow

-scene : QGraphicsScene*
-world : b2world*

-itemList : QList<GameItem*>

-tmer : QTimer -birdtype : static int -birdie : Bird* -bluebirdie : blueBird* -yellowbirdie : yellowbird* -eggbirdie : eggBird*

-backmusic: QMediaPlayer +<<explicit>>MainWindow(Parent:QWidget*=0): void

+~MainWindow()

-slingshot : SlingShot*

+showEvent(QShowEvent*): void

+start(): void

+eventFilter(QQbject*event:QEvent): bool

+closeEvent(QCloseEvent*) : void +displayGameOverWindow() : void

+drawPanel(): void

+<<signals>>quitGame(): void +<<slots>>restartGame(): void +<<slots>> tick(): void -<<slots>>QUITSLOT(): void

Bird

+Bird(x: float,y: float,radius: float, timer: QTimer*, pixmap: QPixmap,

world: b2World*, scene:

QGraphicsScene*)

+setLinearVelocity(velocity:b2Vec2):void

bluebird

+blueBird(x : float ,y : float,radius : float, timer : QTimer*, pixmap : QPixmap,

world: b2World*, scene:

QGraphicsScene*)

+setLinearVelocity(velocity:b2Vec2):void

Gameltem

 $\#g_body: b2Body*$

 $\verb"#g_pixmap: QGraphicsPixmapItem"$

#g_size : QSizeF #g_world : b2World* #g_worldsize : static QSizeF #g_windowsize : static QSizeF

+GameItem(world:b2World*)

+~GameItem()

 $+ setGlobal size (world size: QSizeF, window size: QSizeF): static \ void\\$

+<<slots>>paint() : void

Land

+Land(x:float, y:float, w:float, h:float, pixmap:QPixmap, world:b2World*,

scene:QGraphicsScene*)

eggBird

+eggBird(x : float ,y : float,radius : float,
timer : QTimer*, pixmap : QPixmap,

world: b2World*, scene:

QGraphicsScene*)

+setLinearVelocity(velocity:b2Vec2):void

Enemy

+Enemy(x: float,y: float,radius: float, timer: QTimer*, pixmap: QPixmap,

world: b2World*, scene:

QGraphicsScene*)

yellowbird

+yellowBird(x : float ,y : float,radius : float, timer : QTimer*, pixmap : QPixmap,

world: b2World*, scene:

QGraphicsScene*)

+setLinearVelocity(velocity:b2Vec2):void

Block

+Bock(x:float, y:float, w:float, h:float, pixmap:QPixmap, world:b2World*, scene:QGraphicsScene*)

Button

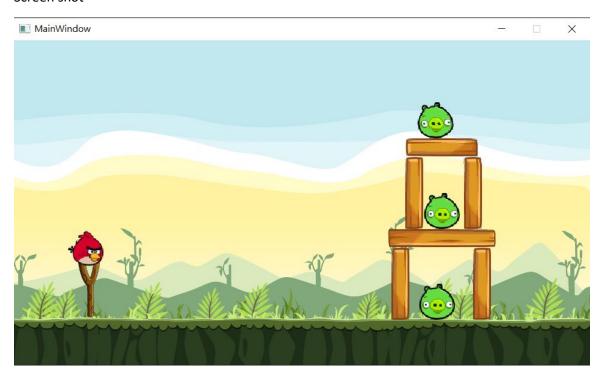
- text:QGraphicsTextItem*

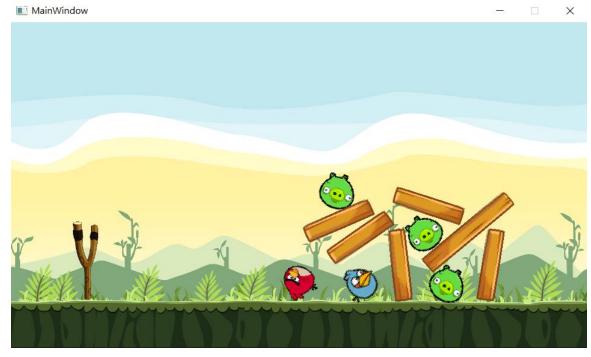
<constructor>+Button(name:QString, parent:QGraphicsItem*)

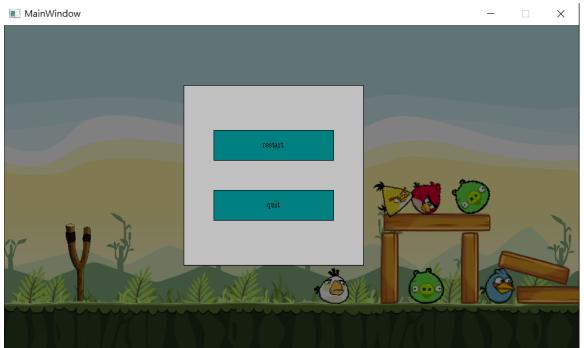
- +mousePressEvent(event: QGraphicsSceneMouseEvent*)
- + hoverEnterEvent(event: QGraphicsSceneHoverEvent*)
- + hoverLeaveEvent(event: QGraphicsSceneHoverEvent*)

	SlingShot	
<pre><constructor>+SlingShot()</constructor></pre>		

2. Screen shot







3. How to play

按下滑鼠時會在彈弓出現鳥,放開時鳥會飛出去,按下空白鍵,四隻鳥有各自的功能 四隻鳥發射完時遊戲結束。

紅色:沒有

藍色:分裂成3隻

黄色:加速

白色:下蛋

4. Bonus

鳥發射時的音效

背景音樂