

* There is the environment of the game.
* There are two pigs(enemy) and 4 birds.
* You are given 4 chances to attack the pigs.
* You have to click the mouse to place the bird to the sling and then you can press and pull the bird to attack the pigs.
* The concept of projection is involved in the game.
* The score will be added by 100 if 1 of the pigs is attacked.
* You are win if you had attacked all the pigs with 4 chances.
* Finally you can choose to restart to quit the game.



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**MainWindow**

+Land(x: float, y: float, w: float, h: float, timer: QTimer \*, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);

**Land**

+ Yellowbird (x: float, y: float, radius: float, timer: QTimer \*, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);

+SpecialSkill(): virtual void

+bodydef: b2BodyDef

**Yellowbird**

+bodydef: b2BodyDef +fixturedef: b2FixtureDef

+bodyshape: b2CircleShape +radius: int

+Bird(x: float, y: float, radius: float, timer: QTimer \*, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);

+set\_linear\_velocity(velocity: b2Vec2): void

+set\_type\_of\_body(check: bool): void

+SpecialSkill(): virtual void

**Bird**

**Bigbird**

+bodydef: b2BodyDef +radius: int

+fixturedef: b2FixtureDef +bodyshape: b2CircleShape

+ Bigbird (x: float, y: float, radius: float, timer: QTimer \*, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);

+SpecialSkill(): virtual void

+set\_linear\_velocity(velocity: 2Vec2): void

+ Bluebird (x: float, y: float, radius: float, timer: QTimer \*, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);

+SpecialSkill(): virtual void

+bodydef: b2BodyDef +radius: int

**Bluebird**

+Pig(x: float, y: float, radius: float, timer: QTimer \*, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);

+bodydef: b2BodyDef

**Pig**

+ Sling (x: float, y: float, w: float, h: float, timer: QTimer \*, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);

+bodyBox: b2PolygonShape

**Sling**

+Block(x: float, y: float, width: float, height: float, timer: QTimer \*, pixmap: QPixmap, world: b2World \*, scene: QGraphicsScene \*);

**Block**

+GameItem(b2World \*world);

+~GameItem();

+setGlobalSize(worldsize: QSizeF, windowsize :QSizeF): static void

+<<slots>> paint(): void

public slots:

void paint();

**GameItem**

+g\_body: b2Body \* +g\_pixmap: QGraphicsPixmapItem +g\_size;QSizeF

+g\_world;b2World \* +g\_windowsize: static QSizeF +g\_worldsize: static QSizeF

+<<explicit>> MainWindow(QWidget \*parent = 0): void

+eventFilter(QObject \*, QEvent \*event): bool

+showEvent(QShowEvent \*): void

+closeEvent(QCloseEvent \*): void

+SetUpOBJ(): voidSetUpVRB(): void

+Situation(): void

+~MainWindow();

+<<slots>> tick(): void

+<<slots>> RestartGame(): void

+<<slots>> QUITSLOT(): void

+<<signals>> quit\_game(): void

-ui: Ui::MainWindow \* -no\_mouse\_click: int

--world: b2World \*; -score: int

-itemList: QList <GameItem \*>; -count: int

-scene: QGraphicsScene \*; -mx3: int

-timer: QTimer; -my3: int

-Main: QGraphicsPixmapItem \*; -fuck: int

-End: QGraphicsPixmapItem \*; -suck: int

-LifeRemainder[4]:QGraphicsPixmapItem \* -dx1: int

-Music: QMediaPlayer \*; -dy1: int

-QiQi: QSound \* -dx2: int

-ZiZi: -QSound \* -dy2: int

-Mimi: QSound \* -no\_deleted: int

-FiFi: QSound \* -whetherD1: bool

-Restart: QPushButton \* -whetherD2: bool

-Exit: QPushButton \* -click\_ed: bool

-ShowingScore: QLabel \* -g: bool

-ShowingLife: QLabel \* -checkscore: bool

-birdstay[4]: Bird \* -blockblock[6]: Block \*

-pigpig[2]: Pig \* -slingsling: Sling \*