

# My Project

[C++ Video Game]

{ [https://github.com/AHMADSHBAT/IP\\_Proj.git](https://github.com/AHMADSHBAT/IP_Proj.git) }

```
1  info(){
```

- ```
2
```
- ```
3
```
- ```
4  • This project is a 2D Golf video game contains a
```
- ```
5    field, some obstacles,two holes and two balls;
```
- ```
6
```
- ```
7  • The field splited into two sides each side is
```
- ```
8    independent, one ball, one hole and its own
```
- ```
9    obstacles;
```
- ```
10
```
- ```
11 • The player should get the ball into the target in
```
- ```
12   each side but simultaneously controlling both
```
- ```
13   balls;
```

```
14 }
```

```
1  Install('Game') {
2
3
4
5      01 Git clone('Link'){
6          Link = Click Here;
7      }
8
9
10     02 Installing('compiler'){
11         Compiler = MingW;
12     }
13 }
14
```

```
1 Run( 'Game' ) {
```

```
2  
3  
4  
5 Run the following command[(MinGW) -f MakeFile];  
6 MinGW should indicates to make.exe file in the  
7 compiler directory, and MakeFile is a cmake file  
8 in the game directory;  
9
```

```
10  
11  
12 }  
13  
14
```

```
1 Learning('Programmatic Physics') {
```

```
2  
3  
4 [How to] 'make the ball slow down continually  
5 while it is moving';  
6
```

```
7  
8 [How to] 'reverse the movement direction of the  
9 ball when it hits a wall/object';  
10
```

```
11  
12 }  
13  
14
```

```
/* slowing down speed of the ball continually */  
if ( getVelocity().x > 0.001 || getVelocity().x < -0.001 || getVelocity().y > 0.001 || getVelocity().y < -0.001 )  
{  
    if (velocity1D > 0)  
    {  
        velocity1D -= friction * deltaTime ;  
    }  
    else  
    {  
        velocity1D = 0;  
    }  
    velocity.x = (velocity1D/launchedVelocity1D)*abs(launchedVelocity.x)*dirX;  
    velocity.y = (velocity1D/launchedVelocity1D)*abs(launchedVelocity.y)*dirY;  
}
```

# That's it!

# Another src Code

```
/* to split the screen into two sides */
if (getPos().x - getCurrentFrame().w > 640/(2 - index))
{
    /* reversing the ball when it hits the right wall */
    setVelocity(-abs(getVelocity().x), getVelocity().y);
    dirX = -1;
}
else if (getPos().x < 0 - (index*320))
{
    /* reversing the ball when it hits the left wall */
    setVelocity(abs(getVelocity().x), getVelocity().y);
    dirX = 1;
}
else if (getPos().y - getCurrentFrame().h > 480)
{
    /* reversing the ball when it hits the bottom wall */
    setVelocity(getVelocity().x, -abs(getVelocity().y));
    dirY = - 1 ;
}
else if (getPos().y < 0)
{
    /* reversing the ball when it hits the up wall */
    setVelocity(getVelocity().x, abs(getVelocity().y));
    dirY = 1 ;
}
```

That's it!

Another src Code

Thank you;

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14