

Lab Sheet Phaser Input & Camera Week08

Task 1: Exploring game environment

- Input a sprite as the background of the game
`thebg = game.add.sprite(0, 0, 'background');`
- Modify the world and camera bounds
`game.world.resize(1920, 1200);`
- Register cursor keys
`cursors = game.input.keyboard.createCursorKeys();`
- Move the camera when certain cursor keys are pressed
`if (cursors.up.isDown) { game.camera.y -= 4; };`

Task 2: Add a game character and a HUD

- Add the animated character from last week's lab
- Add text as part of HUD
`var t = game.add.text(200, 500, "this text is fixed to the camera", { font: "32px Arial", fill: "#FF3300", align: "center" });`
`t.fixedToCamera = true;`

Task 3: Control the game character to explore the environment

- Lock the camera to the player
`game.camera.follow(bot);`
- Register cursor keys
`cursors = game.input.keyboard.createCursorKeys();`
- Move the character when certain cursor keys are pressed
`if (cursors.up.isDown) { bot.y -= 4; };`

Task 4: Create an HUD panel

- Create a panel layout
`var graphics = game.add.graphics(0, 500);`
`graphics.lineStyle(2, 0x0000FF, 1);`
`graphics.beginFill(0x0000FF, 1);`
`graphics.drawRect(0, 0, 900, 100);`
`graphics.endFill();`
`graphics.cameraOffset.setTo(0, 0);`
`graphics.fixedToCamera = true;`
- Add button to the panel
`var Thebutton = game.add.button(0, 0, 'buttonSprite', actionOnClick, this, 2, 1, 0);`
`Thebutton.fixedToCamera = true;`

Task 5: Change the texture of the game character when the button is clicked

`Thebutton.onInputOver.add(over, this);`
`Thebutton.onInputOut.add(out, this);`
`Thebutton.onInputUp.add(up, this);`

Task 6: Add a draggable object

```
bounds = new Phaser.Rectangle(45, 10, 780, 460);
draggablePlatform = game.add.sprite(350, 400, 'atari');
draggablePlatform.scale.setTo(0.7, 0.3);
draggablePlatform.inputEnabled = true;
draggablePlatform.anchor.set(0.5);
draggablePlatform.input.enableDrag();
draggablePlatform.input.boundsRect = bounds;
draggablePlatform.fixedToCamera = true;
```

Task 7: Add a virtual game controller which can be used to control the character

```
buttonleft = game.add.button(400, 520, 'buttonhorizontal', null, this, 0, 1, 0, 1);
buttonleft.fixedToCamera = true;
buttonleft.events.onInputOver.add(function(){left=true;});
buttonleft.events.onInputOut.add(function(){left=false;});
buttonleft.events.onInputDown.add(function(){left=true;});
buttonleft.events.onInputUp.add(function(){left=false;});
```

Task 8: Add event handler for the virtual game controller

```
if (left || cursors.left.isDown) {
    bot.x -= 4;
}
```

Task 9: Add movement hotkeys to control the character (WASD keys)

```
rightHotkey = this.game.input.keyboard.addKey(Phaser.Keyboard.D);
```

Task 10: Add event handler for the hotkeys

```
if (rightHotkey.isDown) {
    bot.x += 4;
}
```