

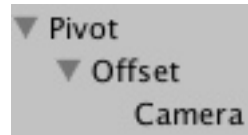
# Moba Camera Script v1.1

created by Jacob Penner 2013

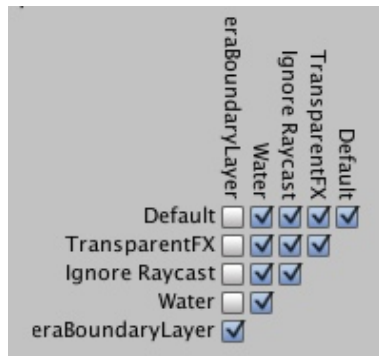
## Basic Setup

The basic setup for the moba camera requires a main pivot(Empty Gameobject), an offset(Empty Gameobject), and a camera.

The parenting order that is required is the Camera parented to the Offset which is parented to the Pivot.



In the Inspector pass the pivot, offset, camera through the Moba\_Camera's corresponding inputs under the requirements tab.



Add a new Layer named "mobaCameraBoundaryLayer". Then under ( Edit >> Project Settings >> Physics ) turn off all interactions with the other layers.

(Recommended) Attach the Moba\_Camera script to the pivot for easy access from the hierarchy.

## Input Managers Required Axes

Script requires axes to be added to the InputManager (Edit >> ProjectSettings >> Input)  
-if the axes are not in the InputManager add the following  
or change the name in the script in the corresponding inputs.

### Needs to be created

#### Moba Rotate Camera

Name: Moba Rotate Camera  
Positive Button: mouse 2  
Type: Key or Mouse Button

#### Moba Lock Camera

Name: Moba Lock Camera  
Positive Button: l  
Type: Key or Mouse Button

#### Moba Char Focus:

Name: Moba Char Focus  
Positive Button: space  
Type: Key or Mouse Button

#### Moba Camera Move Left

Name: Moba Camera Move Left  
Positive Button: left  
Type: Key or Mouse Button

#### Moba Camera Move Right

Name: Moba Camera Move Right  
Positive Button: right  
Type: Key or Mouse Button

#### Moba Camera Move Forward

Name: Moba Camera Move Forward  
Positive Button: up  
Type: Key or Mouse Button

#### Moba Camera Move Backward

Name: Moba Camera Move Backward  
Positive Button: down  
Type: Key or Mouse Button

## Input Managers Required Axes Should be already created.

### Mouse X

Name: Mouse X  
Gravity: 0  
Dead: 0  
Sensitivity: 0.1  
Snap: uncheck  
Invert: uncheck  
Type: Mouse Movement  
Axis: X axis  
Joy: Num: Get Motion from all

### Mouse Y

Name: Mouse Y  
Gravity: 0  
Dead: 0  
Sensitivity: 0.1  
Snap: uncheck  
Invert: uncheck  
Type: Mouse Movement  
Axis: Y axis  
Joy: Num: Get Motion from all

### Mouse ScrollWheel

Name: Mouse ScrollWheel  
Gravity: 0  
Dead: 0  
Sensitivity: 0.1  
Snap: uncheck  
Invert: uncheck  
Type: Mouse Movement  
Axis: 3rd axis(Joysticks and ScrollWheel)  
Joy: Num: Get Motion from all

## Boundary setup

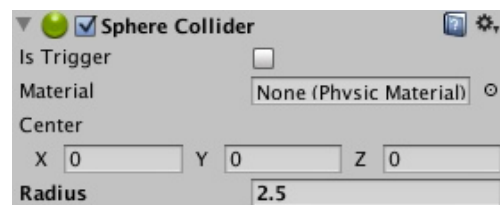
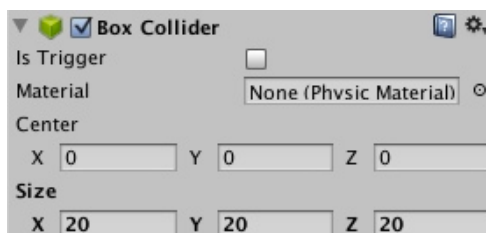
### How to create a boundary object:

- (1) Create an Empty GameObject
- (2) Attach either a Box Collider or a Sphere Collider
- (3) Attach the Moba\_Camera\_Boundary to the created GameObject
  - Under the Moba\_Camera\_Boundary in the Inspector Change the Type to either cube or sphere depending on which Collider type was chosen.
- (4) To Scale the use the Size(x,y,z) in the Box Collider or the Radius in the Sphere Collider

-- Boundaries only support uniformed scaled sheres, adjust the size of the sphere by changing the radius value on the sphere collider.

-- Boundary Prefabs are in the Moba\_Camera/Prefabs folder

-- Boundaries are now automaticly added, no dragging to a list



\*\*\*\*RECOMMENDED NOT TO USE THE TRANSFORM SCALE WITH SPHERES\*\*\*\*

# Controls

All controls can be changed through the script in the inspector under the inputs/keycodes or inputs/axis

Can toggle on or off the keycodes for axes in the inspector

## DEFAULT SETTINGS

### *Moving the camera's position*

- hovering the mouse over the edge of the screen
- Using the Arrow keys

### *Rotate the camera*

- hold middle mouse button and moving the mouse

### *Lock camera to Target*

- Press L to toggle being locked to target
- Hold Space to be locked to target

### *Zoom Camera*

- Scroll the mouse wheel

## Notes:

- Enabling useFixedUpdate may make the camera jumpy when being locked to a target (Maybe removed in later versions)

## Versions

### **v1.1**

- Removed the boundary list from the MobaCamera script
- Created a separate static class that will contain all boundary and do calculations.
- Created a Boundary component that can be attach to a boundary that will automatically add it to the boundary list
- Added cube boundaries are able to be rotated on their Y axis
- Boundaries can now be both cubes and spheres
- Added Axes and Buttons to use the Input Manager instead of KeyCodes
- Added Option to turn on and off use of KeyCodes

### **v0.5**

- Organized Code structure
- Fixed SetCameraRotation function
- Restrict Camera X rotation on range from -89 to 89
- Added property for currentCameraRotation
- Added property for currentCameraZoomAmount
- Can now set the CameraRotation and CameraZoomAmount at runtime with the corresponding properties

### **v0.4**

- Fixed issue with camera colliding with boundaries when locked to target

### **v0.3**

- Added boundaries
- Added default height value to camera
- Allow Camera to Change height value form default to the locked target's height

### **v0.2**

- Changed Handling of Player Input with rotation
- Changed Handling of Player Input with zoom
- fix offset calculation for rotation
- Added Helper classes for better organization