**Unity3D脚本：飞行模拟的实现代码**

Posted on 2013年01月15日 by U3d / [Unity3D脚本/插件](http://www.unitymanual.com/category/script)/被围观 503 次

此脚本视频教程：[Unity3D教程：角色动画的制作与控制](http://www.unitymanual.com/714.html)

视频http://www.unitymanual.com/731.html

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|  |  |  |

|  |  |
| --- | --- |
| 001 | #pragma strict |
| 002 |  |
| 003 | **var** box:GameObject; |
| 004 |  |
| 005 | **private** **var** forceHead:Transform; |
| 006 |  |
| 007 | **private** **var** forceLeftAirfoil:Transform; |
| 008 |  |
| 009 | **private** **var** forceRightAirfoil:Transform; |
| 010 |  |
| 011 | **private** **var** forceLeftTailAirfoil:Transform; |
| 012 |  |
| 013 | **private** **var** forceRightTailAirfoil:Transform; |
| 014 |  |
| 015 | **private** **var** thisTransform:Transform; |
| 016 |  |
| 017 | **private** **var** thisRigidbody:Rigidbody; |
| 018 |  |
| 019 | **private** **var** \_speed:**float** = 250.0f; |
| 020 |  |
| 021 | function Start () |
| 022 |  |
| 023 | { |
| 024 |  |
| 025 | box = GameObject.Find("Plane"); |
| 026 |  |
| 027 | forceHead = transform.Find("ForceHead"); |
| 028 |  |
| 029 | forceLeftAirfoil = transform.Find("ForceLeftAirfoil"); |
| 030 |  |
| 031 | forceRightAirfoil = transform.Find("ForceRightAirfoil"); |
| 032 |  |
| 033 | forceLeftTailAirfoil = transform.Find("ForceLeftTailAirfoil"); |
| 034 |  |
| 035 | forceRightTailAirfoil = transform.Find("ForceRightTailAirfoil"); |
| 036 |  |
| 037 | thisTransform = **this**.transform; |
| 038 |  |
| 039 | thisRigidbody = **this**.rigidbody; |
| 040 |  |
| 041 | } |
| 042 |  |
| 043 | function FixedUpdate () |
| 044 |  |
| 045 | { |
| 046 |  |
| 047 | thisRigidbody.AddForceAtPosition(thisTransform.forward \* **this**.\_speed, forceHead.position); |
| 048 |  |
| 049 | thisRigidbody.AddForceAtPosition(thisTransform.up \* 11.0f, forceLeftAirfoil.position); |
| 050 |  |
| 051 | thisRigidbody.AddForceAtPosition(thisTransform.up \* 11.0f, forceRightAirfoil.position); |
| 052 |  |
| 053 | thisRigidbody.AddForceAtPosition(thisTransform.up \* 5.0f, forceLeftTailAirfoil.position); |
| 054 |  |
| 055 | thisRigidbody.AddForceAtPosition(thisTransform.up \* 5.0f, forceRightTailAirfoil.position); |
| 056 |  |
| 057 | **if**(Input.GetKey(KeyCode.W)) |
| 058 |  |
| 059 | { |
| 060 |  |
| 061 | *// 俯冲* |
| 062 |  |
| 063 | thisRigidbody.AddForceAtPosition(thisTransform.up \* 5.0f, forceLeftTailAirfoil.position); |
| 064 |  |
| 065 | thisRigidbody.AddForceAtPosition(thisTransform.up \* 5.0f, forceRightTailAirfoil.position); |
| 066 |  |
| 067 | } |
| 068 |  |
| 069 | **else** **if**(Input.GetKey(KeyCode.S)) |
| 070 |  |
| 071 | { |
| 072 |  |
| 073 | *// 爬升* |
| 074 |  |
| 075 | thisRigidbody.AddForceAtPosition(thisTransform.up \* -5.0f, forceLeftTailAirfoil.position); |
| 076 |  |
| 077 | thisRigidbody.AddForceAtPosition(thisTransform.up \* -5.0f, forceRightTailAirfoil.position); |
| 078 |  |
| 079 | } |
| 080 |  |
| 081 | **else** **if**(Input.GetKey(KeyCode.A)) |
| 082 |  |
| 083 | { |
| 084 |  |
| 085 | *// 左翻滚* |
| 086 |  |
| 087 | thisRigidbody.AddForceAtPosition(thisTransform.up \* -5.0f, forceLeftTailAirfoil.position); |
| 088 |  |
| 089 | thisRigidbody.AddForceAtPosition(thisTransform.up \* 5.0f, forceRightTailAirfoil.position); |
| 090 |  |
| 091 | } |
| 092 |  |
| 093 | **else** **if**(Input.GetKey(KeyCode.D)) |
| 094 |  |
| 095 | { |
| 096 |  |
| 097 | *// 右翻滚* |
| 098 |  |
| 099 | thisRigidbody.AddForceAtPosition(thisTransform.up \* 5.0f, forceLeftTailAirfoil.position); |
| 100 |  |
| 101 | thisRigidbody.AddForceAtPosition(thisTransform.up \* -5.0f, forceRightTailAirfoil.position); |
| 102 |  |
| 103 | } |
| 104 |  |
| 105 | } |