Tractor Roof

coordinates
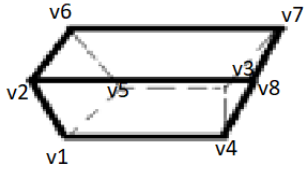
V1	-0.5	-0.25	0.5
V2	-0.8	0.25	0.5
V3	0.8	0.25	0.5
V4	0.5	-0.25	0.5
V5	-0.5	-0.25	-0.5
V6	-0.8	0.25	-0.5
V7	0.8	0.25	-0.5
V8	0.5	-0.25	-0.5

faces

Near	4	3	2	1
Left	1	2	6	5
Right	8	7	3	4
Top	3	7	6	2
Bottom	8	4	1	5
Far	5	6	7	8

Tractor window
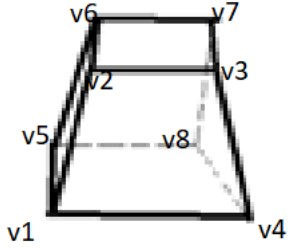
V1	-0.8	-1.0	0.5
V2	-0.5	1.0	0.5
V3	0.5	1.0	0.5
V4	0.8	-1.0	0.5
V5	-0.8	-1.0	-0.5
V6	-0.5	1.0	-0.5
V7	0.5	1.0	-0.5
V8	0.8	-1.0	-0.5

Near	4	3	2	1
Left	1	2	6	5
Right	8	7	3	4
Top	3	7	6	2
Bottom	8	4	1	5
Far	5	6	7	8

Tractor Body
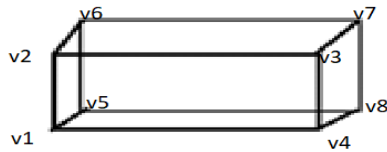
V1	-1.6	-0.5	0.5
V2	-1.6	0.5	0.5
V3	1.5	0.5	0.5
V4	1.5	-0.5	0.5
V5	-1.6	-0.5	-0.5
V6	-1.6	0.5	-0.5
V7	1.5	0.5	-0.5
V8	1.5	-0.5	-0.5

Near	4	3	2	1
Left	1	2	6	5
Right	8	7	3	4
Top	3	7	6	2
Bottom	8	4	1	5
Far	5	6	7	8

Windmill Blades

Centre cube
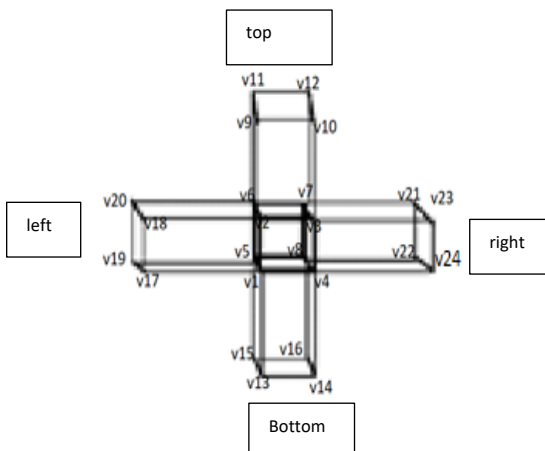
V1	-0.2	-0.2	0.5
V2	-0.2	0.2	0.5
V3	0.2	0.2	0.5
V4	0.2	-0.2	0.5
V5	-0.2	-0.2	0.3
V6	-0.2	0.2	0.3
V7	0.2	0.2	0.3
V8	0.2	-0.2	0.3

Near	4	3	2	1
Left	1	2	6	5
Right	8	7	3	4
Top	3	7	6	2
Bottom	8	4	1	5
Far	5	6	7	8

Top Blade

V9	-0.2	1.2	0.5
V10	0.2	1.2	0.5
V11	-0.2	1.2	0.4
V12	0.2	1.2	0.4

Near	2	3	10	9
Left	11	6	2	9
Right	3	7	12	10
Top	9	10	12	11
Far	6	11	12	7

Bottom blade

V13	-0.2	-1.2	0.5
V14	0.2	-1.2	0.5
V15	-0.2	-1.2	0.4
V16	0.2	-1.2	0.4

Near	1	13	14	4
Left	15	13	1	5
Right	14	16	8	4
bottom	13	14	16	15
Far	15	5	8	16

left blade

Near	3	4	22	21
Left	7	3	21	23
Right	4	8	24	22
Top	21	22	24	23
Far	7	23	24	8

Near	1	12	18	17
Left	5	1	17	19
Right	2	6	20	18
Top	17	18	20	19
Far	5	19	20	6

right blade

V17	-1.2	-0.2	0.5
V18	-1.2	0.2	0.5
V19	-1.2	-0.2	0.4
V20	-1.2	0.2	0.4

V21	1.2	0.2	0.5
V22	1.2	-0.2	0.5
V23	1.2	0.2	0.4
V24	1.2	-0.2	0.4

Windmill body
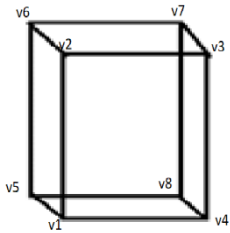
V1	-0.8	-2.0	0.5
V2	-0.5	1.0	0.5
V3	0.5	1.0	0.5
V4	0.8	-2.0	0.5
V5	-0.8	-2.0	-0.5
V6	-0.5	1.0	-0.5
V7	0.5	1.0	-0.5
V8	0.8	-2.0	-0.5

Near	4	3	2	1
Left	1	2	6	5
Right	8	7	3	4
Top	3	7	6	2
Bottom	8	4	1	5
Far	5	6	7	8

Aeroplane Body
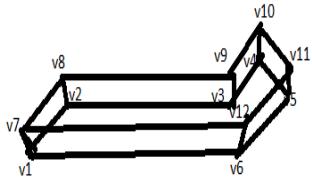
V1	-1.5	0.0	0.5
V2	-1.25	0.5	0.5
V3	1.5	0.5	0.5
V4	1.8	0.8	0.5
V5	1.9	0.8	0.5
V6	1.5	0.0	0.5
V7	-1.5	0.0	0.0
V8	-1.25	0.5	0.0
V9	1.5	0.5	0.0
V10	1.8	0.8	0.0
V11	1.9	0.8	0.0
V12	1.5	0.0	0.0

Near	1	6	5	4	3	2
Left	1	2	8	7		
Right	6	12	11	10	4	5
Top	2	3	9	8		
Top Right	3	4	10	9		
Bottom	7	12	6	1		
Far	7	8	9	10	11	12

Aeroplane Wings
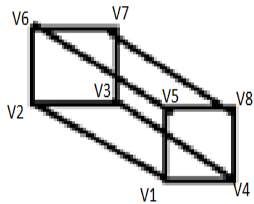
V1	-0.2	0.5	0.5
V2	0.5	0.5	-2.5
V3	1.0	0.5	-2.5
V4	0.2	0.5	0.5
V5	-0.2	0.8	0.5
V6	0.5	0.8	-2.5
V7	1.0	0.8	-2.5
V8	0.2	0.8	0.5

Near	8	4	1	5
Left	1	2	6	5
Right	8	7	3	4
top	5	6	7	8
Bottom	8	4	1	5
Far	3	7	6	2

I have created a farm scene; in the farm I have created a several things that you would find in a typical farm for instance a tractor. The user can control the tractor by moving it left and right. This can be done by clicking the 'R' button on your keyboard to move right and 'L' to move left.

Furthermore, my scene also includes a windmill which is rotating constantly rotating. The windmill doesn't require any user input to rotate. There is additionally a plane which flies past. Furthermore, I have included 5 trees in the far background.

```
* Scene Graph:
*  Scene origin
*  |
*  +-- [S(20,1,20) T(0,-1,-10)] Ground plane
*  |
*  +-- [S(20,1,10) Rx(90) T(0,4,-20)] Sky plane
*  |
*  +-- [T(8.0f, 7, -21.1f)] Moon
*  |
*  +-- [T(1,-1,-18)] Tree
*  |   |
*  |   +-- [Rx(-90)] Trunk
*  |   |
*  |   +-- [T(0,2,0)] triangular head
*  |
*  +-- [T(-1,-1,-18)] Tree
*  |   |
*  |   +-- [Rx(-90)] Trunk
*  |   |
*  |   +-- [T(0,2,0)] triangular head
*  |
*  |  +-- [T(-3,-1,-18)] Tree
*  |   |
*  |   +-- [Rx(-90)] Trunk
*  |   |
*  |   +-- [T(0,2,0)] triangular head
*  |
*  +-- [T(-5,-1,-18)] Tree
*  |   |
*  |   +-- [Rx(-90)] Trunk
*  |   |
*  |   +-- [T(0,2,0)] triangular head
*  |
*  +-- [T(-7,-1,-18)] Tree
*  |   |
*  |   +-- [Rx(-90)] Trunk
*  |   |
*  |   +-- [T(0,2,0)] triangular head
*  |
*  +-- [S(1.0, 1.0, 1.0) T(currentTractorX,-1.4,-1.8)] Tractor Body
*  |   |
*  |   +-- [S(1.0, 1.0, 1.0) T(currentTractorWindowX, -1.0, -1.8)] Tractor Window
*  |   |
*  |   +-- [S(0.12,0.13,0.1) T(currentTractorWindowX,0.32,-1.8)] Tractor Roof
*  |   |
*  |   +-- [ T(1, -0.3, 0.2)] Tractor wheel1
*  |   |
*  |   +-- [ T(-0.2, 0.0, -0.5)] Tractor wheel2
*  |   |
*  |   +-- [ T(-1.8, -0.3 ,0.6)] Tractor wheel3
*  |   |
*  |   +-- [ T(0.0, 0.0 ,1.3)] Tractor wheel4
*  |
*  +-- [S(0.15, 0.15, 0.15) T(-0.7, 0.0, -2.0)] Windmill Body
*  |   |
*  |   +-- [S(1.7, 1.7, 1.5) T(0.12, 0.6, -0.20) R(bladesRotationAngle,0.0,0.0,1.0) ] Windmill Blades
*  |
*  +-- [S(0.15, 0.15, 0.15) T(currentAeroplaneX, 0.65f, -2.5f)] aeroplanes body
*  |   |
*  |   +-- [S(0.7f, 0.7f, -1.5f) T(currentAeroplaneWingsX, -0.2f, -2.0f)  ] aeroplane wings
```

Grass texture:

https://www.turbosquid.com/FullPreview/Index.cfm/ID/253867

Sky texture:

https://www.bing.com/images/search?view=detailv2&FORM=EDGEIN&iss=sbi&imgurl=https%3A%2F%2Fmyyogaconnect.com%2Fapp%2Fuploads%2F2018%2F06%2Fhatha-yoga-9.png