

ANEXO 2. BANCO DE PRUEBAS

Descripción conjunto de escenas de prueba.




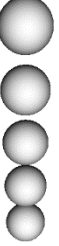
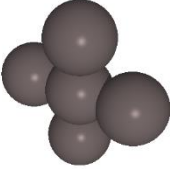
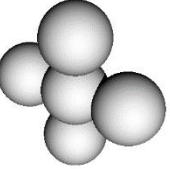
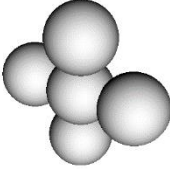
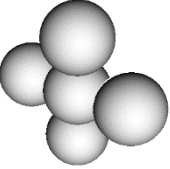
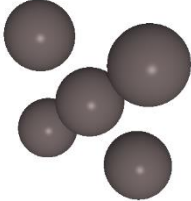
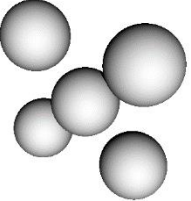
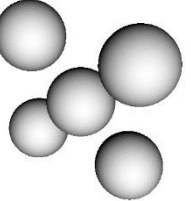
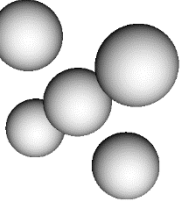
| Escena | Primitiva | Centro | Radio | Cara de Arriba |
|---------------|-----------|-------------------|-------|----------------|
| <i>balls0</i> | Esfera | (0.0, 0.0, -0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.1) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.1) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.0) | 0.2 | NO APLICA |
| <i>balls1</i> | Esfera | (0.0, 0.0, 0.0) | 0.3 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.5) | 0.3 | NO APLICA |
| | Esfera | (0.0, 0.0, -0.5) | 0.3 | NO APLICA |
| | Esfera | (0.0, 0.5, 0.0) | 0.3 | NO APLICA |
| | Esfera | (0.0, -0.5, 0.0) | 0.3 | NO APLICA |
| <i>balls2</i> | Esfera | (0.0, 0.5, 0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, 1.0, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, -0.5, -0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, -0.5, 0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, -1.0, 0.0) | 0.2 | NO APLICA |
| <i>balls3</i> | Esfera | (0.0, 0.0, 0.0) | 0.5 | NO APLICA |
| | Esfera | (0.0, 0.5, 0.5) | 0.3 | NO APLICA |
| | Esfera | (0.0, -0.5, 0.5) | 0.3 | NO APLICA |
| <i>balls4</i> | Esfera | (0.0, 0.5, 0.0) | 0.3 | NO APLICA |
| | Esfera | (0.0, 1.0, 0.0) | 0.3 | NO APLICA |
| | Esfera | (0.0, -0.5, 0.0) | 0.3 | NO APLICA |
| | Esfera | (0.0, -1.0, 0.0) | 0.3 | NO APLICA |
| <i>balls5</i> | Esfera | (0.0, 0.5, 0.5) | 0.2 | NO APLICA |

| Escena | Primitiva | Centro | Radio | Cara de Arriba |
|------------------|-----------|-------------------|-------|------------------|
| | Esfera | (0.0, -0.5, 0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, 1.0, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, -0.5, -0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.5, -0.5) | 0.2 | NO APLICA |
| <i>balls6</i> | Esfera | (0.0, -1.0, 0.1) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.1) | 0.2 | NO APLICA |
| | Esfera | (0.0, 1.0, 0.1) | 0.2 | NO APLICA |
| | Esfera | (0.0, -1.0, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, 1.0, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, -1.0) | 0.2 | NO APLICA |
| <i>balls7</i> | Esfera | (0.0, 0.5, 0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, 1.0, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, -0.5, -0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, -0.5, 0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, -1.0, 0.0) | 0.2 | NO APLICA |
| <i>balls8</i> | Esfera | (0.0, 0.0, 0.0) | 0.8 | NO APLICA |
| <i>balls9</i> | Esfera | (0.0, -1.0, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, -0.5, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.5, 0.0) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, -0.5) | 0.2 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.5) | 0.2 | NO APLICA |
| <i>cylinder0</i> | Cilindro | (0.0, 1.0, 0.0) | 0.5 | (0.0, 0.0, 0.0) |
| <i>cylinder1</i> | Cilindro | (0.0, 1.0, 0.0) | 1.0 | (0.0, -0.5, 0.0) |

| Escena | Primitiva | Centro | Radio | Cara de Arriba |
|------------------|-----------|------------------|-------|-------------------|
| | Cilindro | (0.0, 0.0, 0.1) | 1.0 | (0.0, 0.0, -0.5) |
| <i>cylinder2</i> | Cilindro | (0.0, 1.0, 0.0) | 1.0 | (0.0, -0.5, 0.0) |
| | Cilindro | (0.0, 0.0, 0.1) | 1.0 | (0.0, -0.5, -0.5) |
| | Cilindro | (0.0, 0.0, 0.1) | 1.0 | (0.0, 0.5, -0.5) |
| | Cilindro | (0.0, 0.0, 0.1) | 1.0 | (0.0, -0.5, 0.0) |
| <i>cylinder3</i> | Cilindro | (0.0, 0.0, 0.1) | 1.0 | (0.0, 0.0, 0.0) |
| | Cilindro | (0.0, 0.0, 0.1) | 1.0 | (0.0, 0.5, 0.0) |
| | Cilindro | (0.0, 0.0, 0.1) | 1.0 | (0.0, 1.0, 0.0) |
| | Cilindro | (0.0, 0.0, 0.1) | 1.0 | (0.0, -0.5, 0.0) |
| <i>cylinder4</i> | Cilindro | (0.0, 1.0, 0.1) | 1.0 | (0.0, -0.5, -0.5) |
| <i>cylinder5</i> | Cilindro | (1.0, 0.0, 0.1) | 1.0 | (0.0, 0.5, 0.0) |
| | Cilindro | (-1, 0.0, 0.1) | 1.0 | (0.0, -0.5, 0.0) |
| | Cilindro | (1.0, 1.0, 0.0) | 1.0 | (0.0, 0.5, 0.0) |
| | Cilindro | (-1, 1.0, 0.0) | 1.0 | (0.0, 0.0, -0.5) |
| <i>cylinder6</i> | Cilindro | (0.0, 1.0, 0.0) | 1.0 | (0.0, -0.5, 0.5) |
| | Cilindro | (0.0, 1.0, 0.0) | 1.0 | (0.0, -0.5, -0.5) |
| <i>both0</i> | Cilindro | (0.0, 0.0, 0.1) | 0.5 | (0.0, 0.0, 0.0) |
| | Esfera | (0.0, 0.5, 0.0) | 0.5 | NO APLICA |
| | Esfera | (0.0, 0.0, 0.1) | 0.5 | NO APLICA |
| | Esfera | (0.0, -0.5, 0.0) | 0.5 | NO APLICA |
| <i>both1</i> | Cilindro | (0.0, 0.0, 0.1) | 0.5 | (0.0, 0.0, 0.0) |
| | Esfera | (0.0, 0.0, 0.1) | 0.5 | NO APLICA |
| <i>both2</i> | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 0.0, 0.0) |
| | Esfera | (0.0, 0.0, 0.1) | 0.3 | NO APLICA |
| | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 1.0, 0.1) |
| <i>both3</i> | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 0.0, -1.0) |

| Escena | Primitiva | Centro | Radio | Cara de Arriba |
|--------------|-----------|-----------------|-------|------------------|
| | Esfera | (0.0, 0.0, 0.1) | 0.3 | NO APLICA |
| | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 1.0, 0.1) |
| | Esfera | (0.0, 0.0, 0.1) | 0.3 | NO APLICA |
| <i>both4</i> | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 0.0, -1.0) |
| | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 1.0, 0.1) |
| | Esfera | (0.0, 1.0, 0.1) | 0.3 | NO APLICA |
| | Cilindro | (0.0, 1.0, 0.1) | 0.3 | (0.0, -1.0, 0.1) |
| <i>both5</i> | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 0.0, -1.0) |
| | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 1.0, 0.1) |
| | Esfera | (0.0, 1.0, 0.1) | 0.3 | NO APLICA |
| | Cilindro | (0.0, 1.0, 0.1) | 0.3 | (0.0, -1.0, 0.1) |
| | Cilindro | (0.0, 1.0, 0.1) | 0.3 | (0.0, 0.0, -1.0) |
| <i>both6</i> | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 0.0, -1.0) |
| | Cilindro | (0.0, 0.0, 0.1) | 0.3 | (0.0, 1.0, 0.1) |
| | Esfera | (0.0, 1.0, 0.1) | 0.3 | NO APLICA |
| | Cilindro | (0.0, 1.0, 0.1) | 0.3 | (0.0, -1.0, 0.1) |
| | Cilindro | (0.0, 1.0, 0.1) | 0.3 | (0.0, 0.0, -1.0) |
| | Esfera | (0.0, 1.0, 0.1) | 0.3 | NO APLICA |
| | Esfera | (0.0, 1.5, 1.5) | 0.5 | NO APLICA |

Resultados de las escenas a las que se les ha hecho proceso de *rendering* tanto en *software* como en *hardware*.

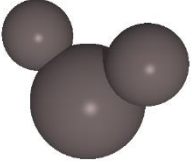
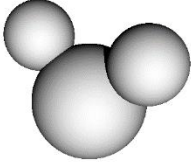
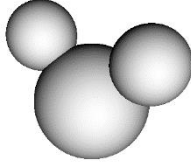
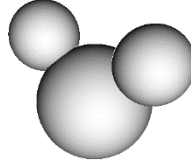
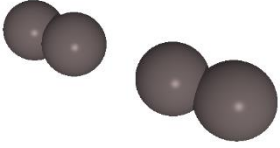
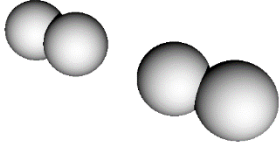
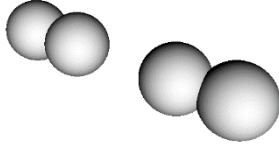
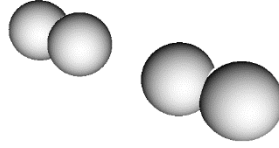
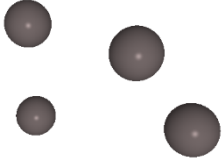
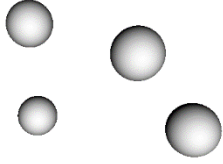
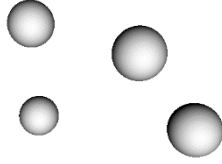
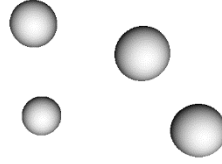
| Escena | Software Opción 1 ¹ | Software Opción 2 ² | Software Opción 3 ³ | Hardware ⁴ |
|---------------|--|---|--|--|
| <i>balls0</i> |  |  |  |  |
| <i>balls1</i> |  |  |  |  |
| <i>balls2</i> |  |  |  |  |

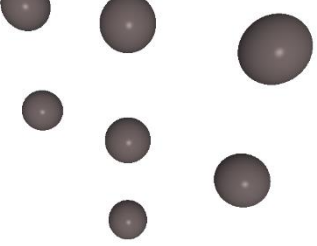
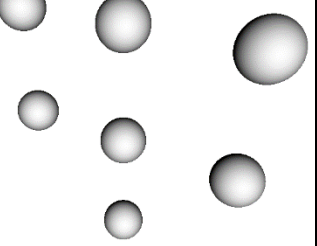
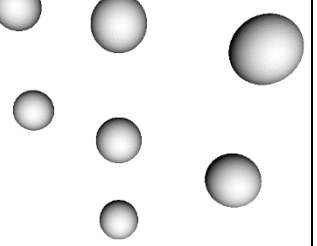
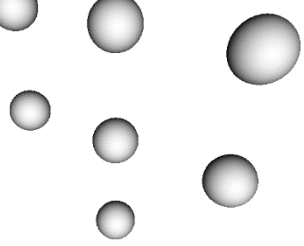
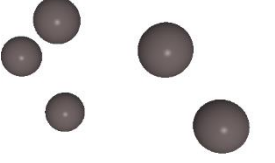
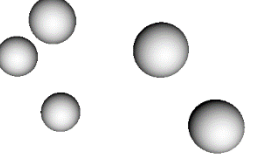
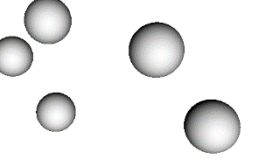
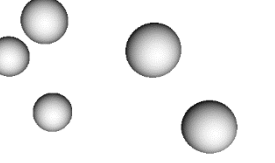
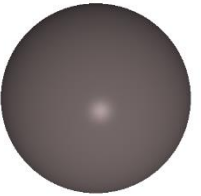
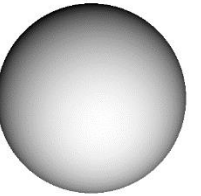
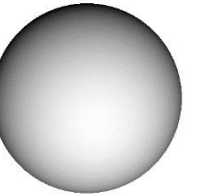
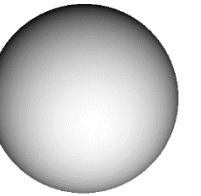
¹ Imagen a color por defecto.

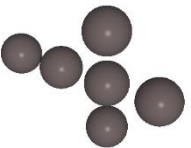
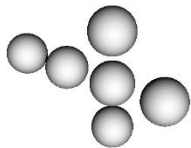
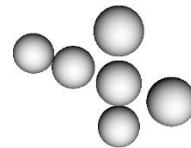
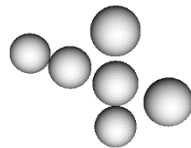

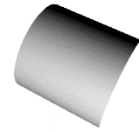
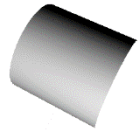
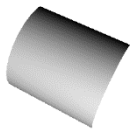
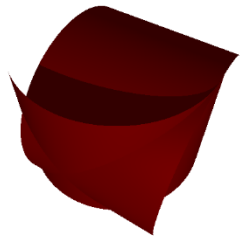
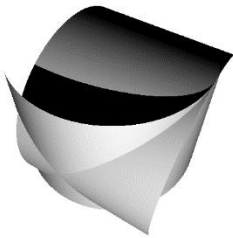
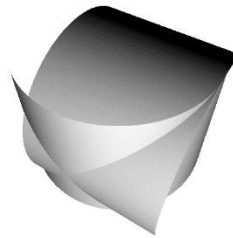
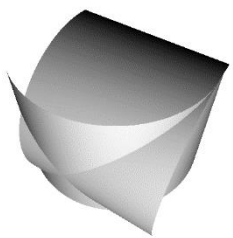
² Imagen en escala de grises.

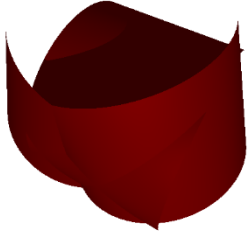
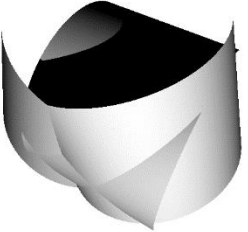
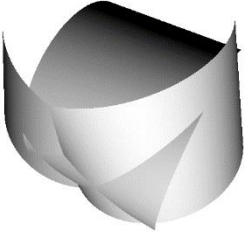
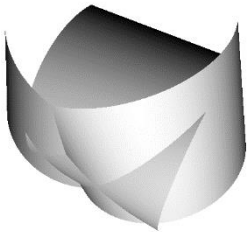
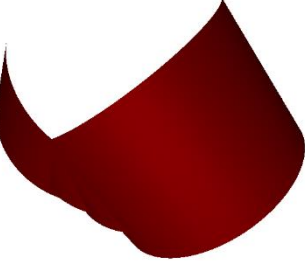
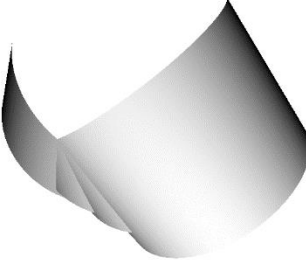
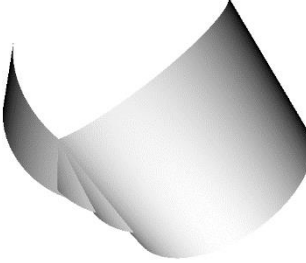
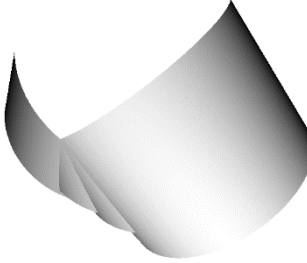
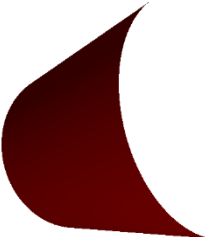
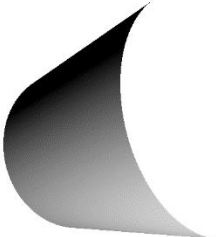
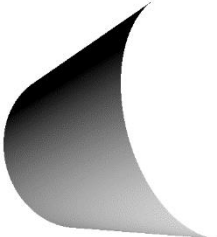
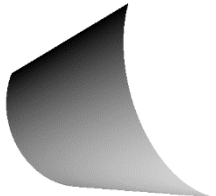
³ Imagen en escala de grises sin sombra.

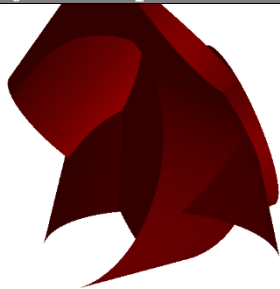
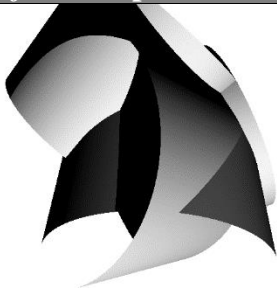
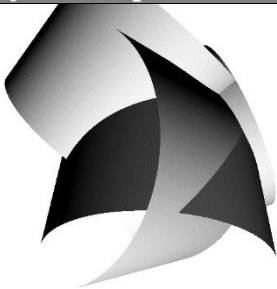
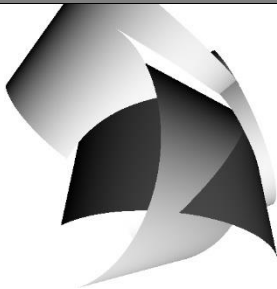
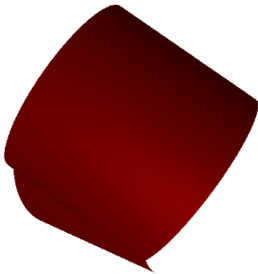
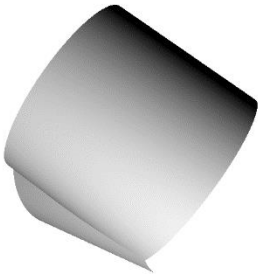
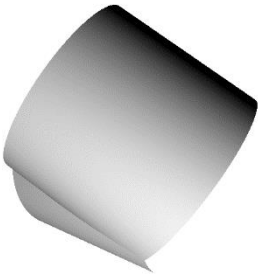
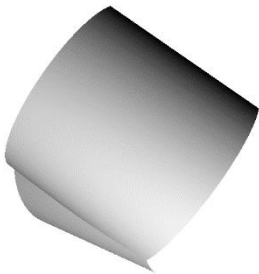
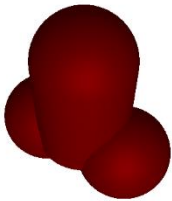
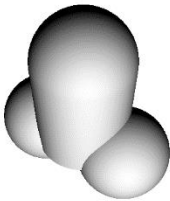
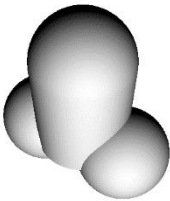
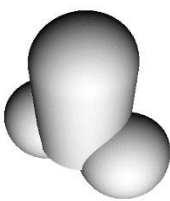
⁴ Imagen generada en *FPGA*.





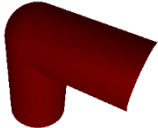


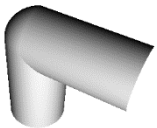
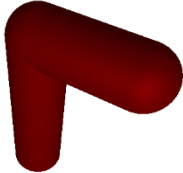


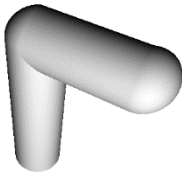
| Escena | Software Opción 1 ¹ | Software Opción 2 ² | Software Opción 3 ³ | Hardware ⁴ |
|---------------|--|---|--|--|
| <i>balls3</i> |  |  |  |  |
| <i>balls4</i> |  |  |  |  |
| <i>balls5</i> |  |  |  |  |

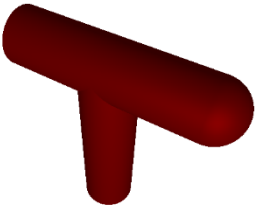
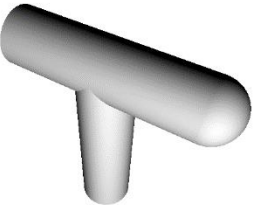
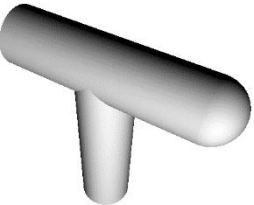
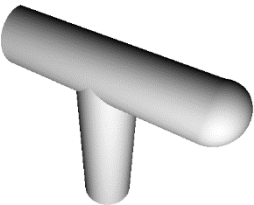
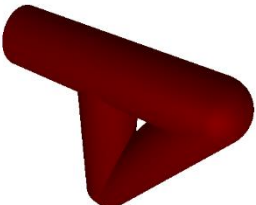
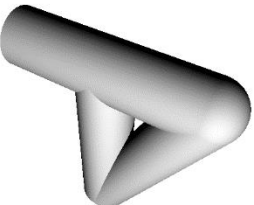
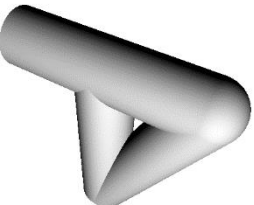
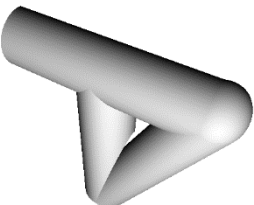
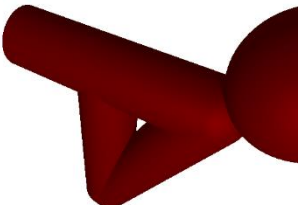
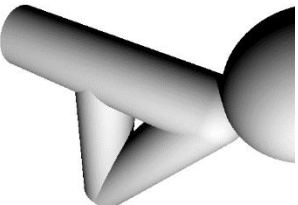
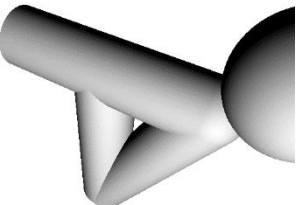
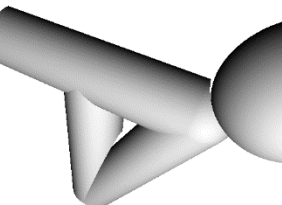
| Escena | Software Opción 1 ¹ | Software Opción 2 ² | Software Opción 3 ³ | Hardware ⁴ |
|---------------|--|---|--|--|
| <i>balls6</i> |  |  |  |  |
| <i>balls7</i> |  |  |  |  |
| <i>balls8</i> |  |  |  |  |

| Escena | Software Opción 1 ¹ | Software Opción 2 ² | Software Opción 3 ³ | Hardware ⁴ |
|-----------------------|--|---|--|--|
| <i>balls9</i> |  |  |  |  |
| <i>cylinder 0</i> |  |  |  |  |
| <i>cylinder 1</i> |  |  |  |  |

| Escena | <i>Software</i> Opción 1 ¹ | <i>Software</i> Opción 2 ² | <i>Software</i> Opción 3 ³ | <i>Hardware</i> ⁴ |
|----------------------|--|---|--|--|
| <i>cylinder</i> 2 |  |  |  |  |
| <i>cylinder</i> 3 |  |  |  |  |
| <i>cylinder</i> 4 |  |  |  |  |

| Escena | Software Opción 1 ¹ | Software Opción 2 ² | Software Opción 3 ³ | Hardware ⁴ |
|----------------------|--|---|--|--|
| <i>cylinder</i> 5 |  |  |  |  |
| <i>cylinder</i> 6 |  |  |  |  |
| <i>both0</i> |  |  |  |  |

| Escena | <i>Software</i> Opción 1 ¹ | <i>Software</i> Opción 2 ² | <i>Software</i> Opción 3 ³ | <i>Hardware</i> ⁴ |
|--------------|--|---|--|--|
| <i>both1</i> |  |  |  |  |
| <i>both2</i> |  |  |  |  |
| <i>both3</i> |  |  |  |  |

| Escena | Software Opción 1 ¹ | Software Opción 2 ² | Software Opción 3 ³ | Hardware ⁴ |
|--------------|--|---|--|--|
| <i>both4</i> |  |  |  |  |
| <i>both5</i> |  |  |  |  |
| <i>both6</i> |  |  |  |  |