45 degrees in the x axis

|  |  |  |
| --- | --- | --- |
| 1 | 0 | 0 |
| 0 | 0.7071 | -0.7071 |
| 0 | 0.7071 | 0.7071 |

45 degrees in the y axis

|  |  |  |
| --- | --- | --- |
| 0.7071 | 0 | 0.7071 |
| 0 | 1 | 0 |
| -0.7071 | 0 | 0.7071 |

Checkpoint 1 :

|  |
| --- |
| 1.4142 |
| 0.7071 |
| 0 |

Checkpoint 2 :

|  |
| --- |
| 0.7071 |
| 0.7071 |
| 1.4142 |

Checkpoint 3:

|  |
| --- |
| 3 |
| 0 |
| 3 |

Checkpoint 4 :

|  |
| --- |
| 3 |
| -0.41421 |
| 2 |

Checkpoint 6 : In the 100 mm image, the detail on the monkey image appears much clearer, as the magnification is greater. As a result, we position the camera further away to keep the magnification detail and angle of view without cutting off parts of the image. In the 25 mm image, the magnification is low, and as such, the camera is positioned very close to the object. However, it does have a very wide angle of view, like a fish angle lens.

Checkpoint 7 :