

HW2_2

1_A:

projection matrix =

$$\begin{bmatrix} 0.10324201 & -0.01852856 & -0.02920487 & 0.24432505 \\ -0.00502912 & 0.0196838 & -0.12314396 & 0.80625995 \\ 0.00001827 & -0.00015889 & -0.00014579 & 0.00267524 \end{bmatrix}$$

1_B:

K =

$$\begin{bmatrix} 464.14857662 & -6.47987459 & 194.05429 & \\ 0. & 483.35687002 & 314.59901327 & \\ 0. & 0. & 1. & \end{bmatrix}$$

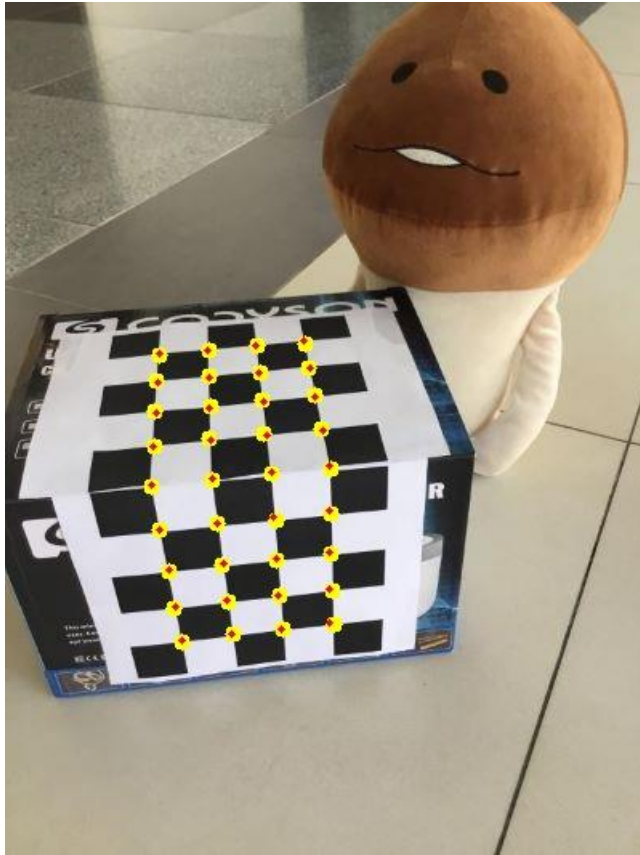
R =

$$\begin{bmatrix} -0.99108743 & -0.13179146 & 0.01940934 \\ 0.10303464 & -0.66603126 & 0.73877346 \\ -0.08443681 & 0.73418892 & 0.67367429 \end{bmatrix}$$

T =

$$\begin{bmatrix} 2.74065896 \\ 0.33810642 \\ -12.36184469 \end{bmatrix}$$

1_C:



root-mean-squared errors =

0.5655096737344247



root-mean-squared errors =

0.7429265148241441

1_D:

沒做

2_A:



2_B:

Forward:

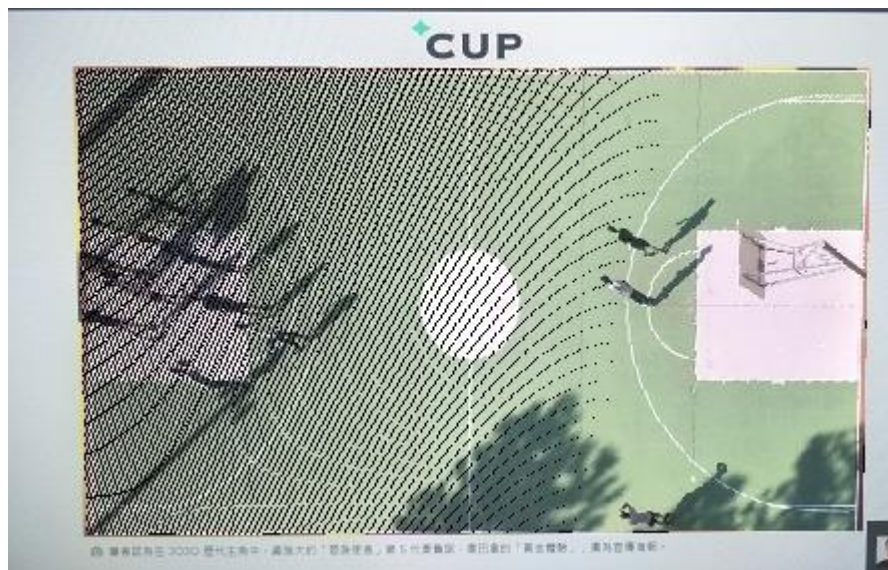


Backward:



2_C:

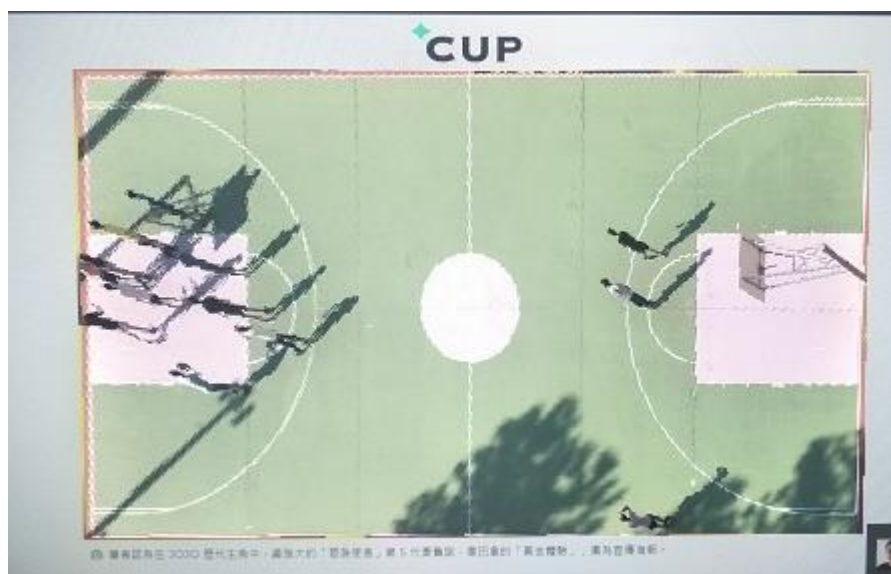
Forward1:



forward1:



Backward1:



Backward2:



2_D:

可以看到，forward 有些點換 mapping 不到，因此造成黑
(白)線，而 backward 則沒有此問題