## 4, same process done for each part of 4

```
\label{eq:decomposition} \begin{split} &\text{DCM} = [0 \ -1 \ 0; -1 \ 0 \ 0; 0 \ -1] * [0 \ 1/\text{sqrt}(2) \ -1/\text{sqrt}(2); 1 \ 0 \ 0; 0 \ -1/\text{sqrt}(2); \\ &\text{sqrt}(2) \ -1/\text{sqrt}(2)]; \\ &[V,D] = \text{eig}(DCM); \\ &\text{axis} = V(:,3); \ % \ \text{different column of V is chosen depending on column that corresponds to same column of D that contains a 1} \end{split}
```

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