if ep == [-1, -1, 0]:

return 0

elif ep[:2] == [-1, -1] and ep[2] > 0:

return 1

elif ep == [2, 0, 0]:

return 2

elif ep[:2] == [2, 0] and ep[2] > 0:

return 3

elif ep[0] == 2 and ep[1] > 0:

return 4

elif ep[0] == 3:

return 5

elif ep[0] > 3:

return 6

OF, BF, OTh, BTh, OTw, BTw

OF, BF, OTh, BTh, OTw, BTw

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | ep\_r = 0 | ep\_r = 1 | ep\_r = 2 | ep\_r = 3 | ep\_r = 4 | ep\_r = 5 | ep\_r = 6 |
| ep\_l = 0 | (0, 0) | (0, 1) | (0, 2) | (0, 3) | (0, 4) | (0, 5) | (0, 6) |
| ep\_l = 1 | (1, 0) | (1, 1) | (1, 2) | (1, 3) | (1, 4) | (1, 5) | (1, 6) |
| ep\_l = 2 | (2, 0) | (2, 1) | (2, 2) | (2, 3) | (2, 4) | (2, 5) | (2, 6) |
| ep\_l = 3 | (3, 0) | (3, 1) | (3, 2) | (3, 3) | (3, 4) | (3, 5) | (3, 6) |
| ep\_l = 4 | (4, 0) | (4, 1) | (4, 2) | (4, 3) | (4, 4) | (4, 5) | (4, 6) |
| ep\_l = 5 | (5, 0) | (5, 1) | (5, 2) | (5, 3) | (5, 4) | (5, 5) | (5, 6) |
| ep\_l = 6 | (6, 0) | (6, 1) | (6, 2) | (6, 3) | (6, 4) | (6, 5) | (6, 6) |

------------------------------------- New Endpoint Encoding ----------------------------

if ep == np.array([1]):

return 0

elif ep == np.array([0, 1]):

return 1

elif ep == np.array([0, 0, 1]):

return 2

elif ep == np.array([1, 0, 1]):

return 3

elif ep == np.array([0, 0, 0, 1]):

return 4

elif ep == np.array([0, 1, 0, 1]):

return 5

elif ep == np.array([1, 0, 0, 1]):

return 6

elif ep == np.array([1, 1, 0, 1]):

return 7

|  |  |  |  |
| --- | --- | --- | --- |
| ep\_old | ep\_value\_old | ep\_new | ep\_value\_new |
| [-1, -1, 0] | 0 | [1] | 0 |
| [-1, -1, +] | 1 | [0, 1] | 1 |
|  |  | [0, 0, 1] | 2 |
|  |  | [0, 0, 0, 1] | 4 |
| [2, 0, 0] | 2 | [1, 0, 1] | 3 |
| [2, 0, +] | 3 | [0, 1, 0, 1] | 5 |
| [2, +, ?] | 4 | [1, 1, 0, 1] | 7 |
| [3, ?, ?] | 5 | [1, 0, 0, 1] | 6 |
| [>3, ?, ?] | 6 | [0, 0, 0, 1] | 4 |

OF, BF, OTh, BTh, OTw, BTw

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ep\_r = 0 | ep\_r = 1 | ep\_r = 2 | ep\_r = 3 | ep\_r = 4 | ep\_r = 5 | ep\_r = 6 | ep\_r = 7 |
| ep\_l = 0 |  |  |  |  | (0, 4) | (0, 5) | (0, 6) | (0, 7) |
| ep\_l = 1 |  |  | (1, 2) | (1, 3) | (1, 4) | (1, 5) | (1, 6) | (1, 7) |
| ep\_l = 2 |  | (2, 1) | (2, 2) | (2, 3) | (2, 4) | (2, 5) | (2, 6) | (2, 7) |
| ep\_l = 3 |  | (3, 1) | (3, 2) | (3, 3) | (3, 4) | (3, 5) | (3, 6) | (3, 7) |
| ep\_l = 4 | (4, 0) | (4, 1) | (4, 2) | (4, 3) | (4, 4) | (4, 5) | (4, 6) | (4, 7) |
| ep\_l = 5 | (5, 0) | (5, 1) | (5, 2) | (5, 3) | (5, 4) | (5, 5) | (5, 6) | (5, 7) |
| ep\_l = 6 | (6, 0) | (6, 1) | (6, 2) | (6, 3) | (6, 4) | (6, 5) | (6, 6) | (6, 7) |
| ep\_l = 7 | (7, 0) | (7, 1) | (7, 2) | (7, 3) | (7, 4) | (7, 5) | (7, 6) | (7, 7) |