# tf.keras.constraints.UnitNorm



## Class `UnitNorm`

Inherits From: `Constraint`

### Aliases:

- Class `tf.keras.constraints.UnitNorm`
- Class `tf.keras.constraints.unit_norm`

Defined in `tensorflow/python/keras/_impl/keras/constraints.py`.

Constrains the weights incident to each hidden unit to have unit norm.

### Arguments:

- `axis`: integer, axis along which to calculate weight norms. For instance, in a `Dense` layer the weight matrix has shape `(input_dim, output_dim)`, set `axis` to `0` to constrain each weight vector of length `(input_dim,)`. In a `Conv2D` layer with `data_format="channels_last"`, the weight tensor has shape `(rows, cols, input_depth, output_depth)`, set `axis` to `[0, 1, 2]` to constrain the weights of each filter tensor of size `(rows, cols, input_depth)`.

## Methods

### `__init__`

```
__init__(axis=0)
```

### `__call__`

```
__call__(w)
```

### `get_config`

```
get_config()
```

*Last updated November 2, 2017.*