



### 1. Fully Connected Layer (fc)

**Purpose:** This layer connects every neuron in the previous layer to every neuron in this layer. It is typically used near the end of the network to combine the features learned by the convolutional and pooling layers.

**Parameters:**

**OutputSize:** Number of neurons in the layer, which usually corresponds to the number of classes in the classification task. In this case, it is set to 3.

### 2. Softmax Layer (softmax)

**Purpose:** This layer converts the raw scores (logits) output by the fully connected layer into probabilities. It ensures that the output values are between 0 and 1 and that they sum to 1, which is necessary for classification tasks.

**Function:** The softmax function applies an exponential function to each input value and then normalizes these values by dividing by the sum of all exponentials.

### 3. Classification Output Layer (classoutput)

**Purpose:** This layer is used to specify the output of the network. It compares the predicted labels to the true labels and calculates the loss during training.

**Function:** It computes the cross-entropy loss for multi-class classification problems, which measures the difference between the predicted probabilities and the true labels.

**Outputs:** This layer outputs the final classification predictions and the calculated loss during training.