# Fully-Connected Module Architecture

The following tables summarize the architecture of the fully-connected (FC) module used in the network. For target sizes in the range (100, 512], two hidden layers are used with sizes target\_size//2 and target\_size//4 respectively, each followed by BatchNorm1d and LeakyReLU. For target sizes <= 100, a single hidden layer of size max(10, target\_size//2) is used.

## Target Size: 8

|  |  |
| --- | --- |
| Layer | Parameters / Details |
| Linear | In Features: 8, Out Features: 10 |
| BatchNorm1d | 10 channels |
| Activation | LeakyReLU |
| Linear | In Features: 10, Out Features: 1 |

## Target Size: 16

|  |  |
| --- | --- |
| Layer | Parameters / Details |
| Linear | In Features: 16, Out Features: 10 |
| BatchNorm1d | 10 channels |
| Activation | LeakyReLU |
| Linear | In Features: 10, Out Features: 1 |

## Target Size: 32

|  |  |
| --- | --- |
| Layer | Parameters / Details |
| Linear | In Features: 32, Out Features: 16 |
| BatchNorm1d | 16 channels |
| Activation | LeakyReLU |
| Linear | In Features: 16, Out Features: 1 |

## Target Size: 64

|  |  |
| --- | --- |
| Layer | Parameters / Details |
| Linear | In Features: 64, Out Features: 32 |
| BatchNorm1d | 32 channels |
| Activation | LeakyReLU |
| Linear | In Features: 32, Out Features: 1 |

## Target Size: 128

|  |  |
| --- | --- |
| Layer | Parameters / Details |
| Linear | In Features: 128, Out Features: 64 |
| BatchNorm1d | 64 channels |
| Activation | LeakyReLU |
| Linear | In Features: 64, Out Features: 32 |
| BatchNorm1d | 32 channels |
| Activation | LeakyReLU |
| Linear | In Features: 32, Out Features: 1 |

## Target Size: 256

|  |  |
| --- | --- |
| Layer | Parameters / Details |
| Linear | In Features: 256, Out Features: 128 |
| BatchNorm1d | 128 channels |
| Activation | LeakyReLU |
| Linear | In Features: 128, Out Features: 64 |
| BatchNorm1d | 64 channels |
| Activation | LeakyReLU |
| Linear | In Features: 64, Out Features: 1 |

## Target Size: 512

|  |  |
| --- | --- |
| Layer | Parameters / Details |
| Linear | In Features: 512, Out Features: 256 |
| BatchNorm1d | 256 channels |
| Activation | LeakyReLU |
| Linear | In Features: 256, Out Features: 128 |
| BatchNorm1d | 128 channels |
| Activation | LeakyReLU |
| Linear | In Features: 128, Out Features: 1 |