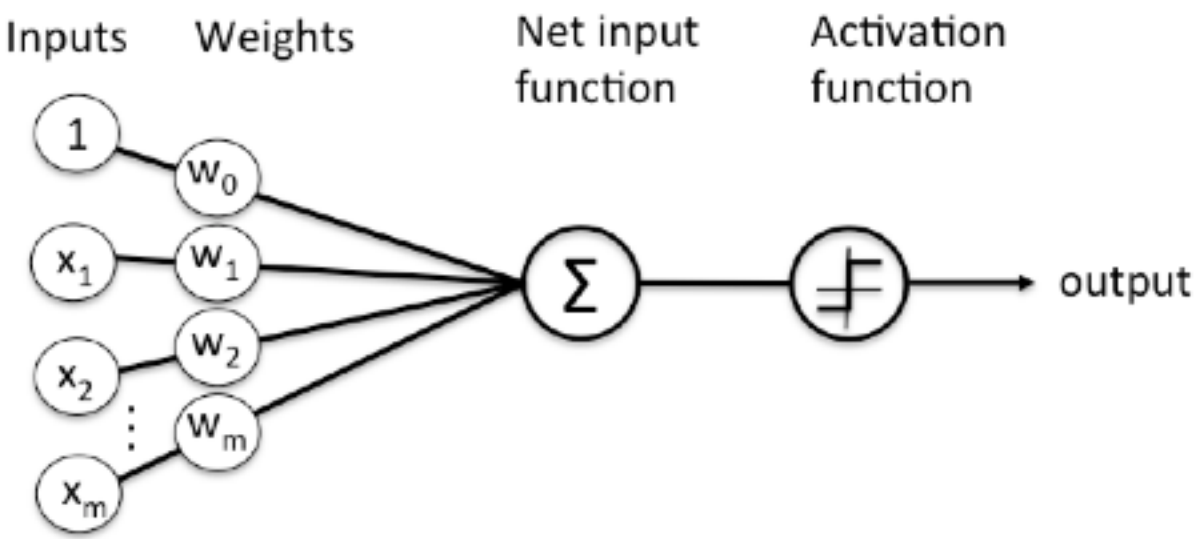
- Neural networks

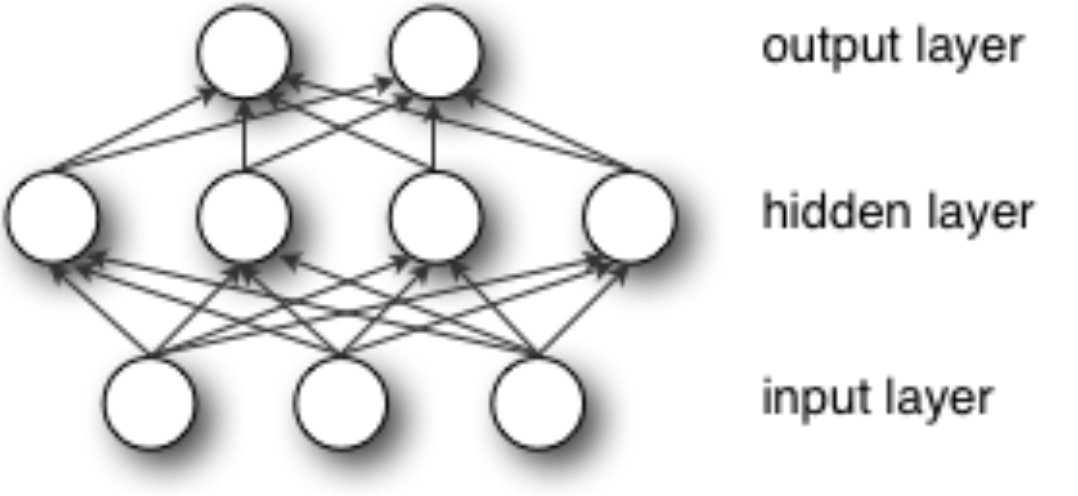
- **Neural nets**

  inputs weights

  summing activation

input hidden output


Inputs
Weights
Net input function
Activation function
1
w_0
x_1
w_1
w_2
x_2
w_m
x_m
Σ
output

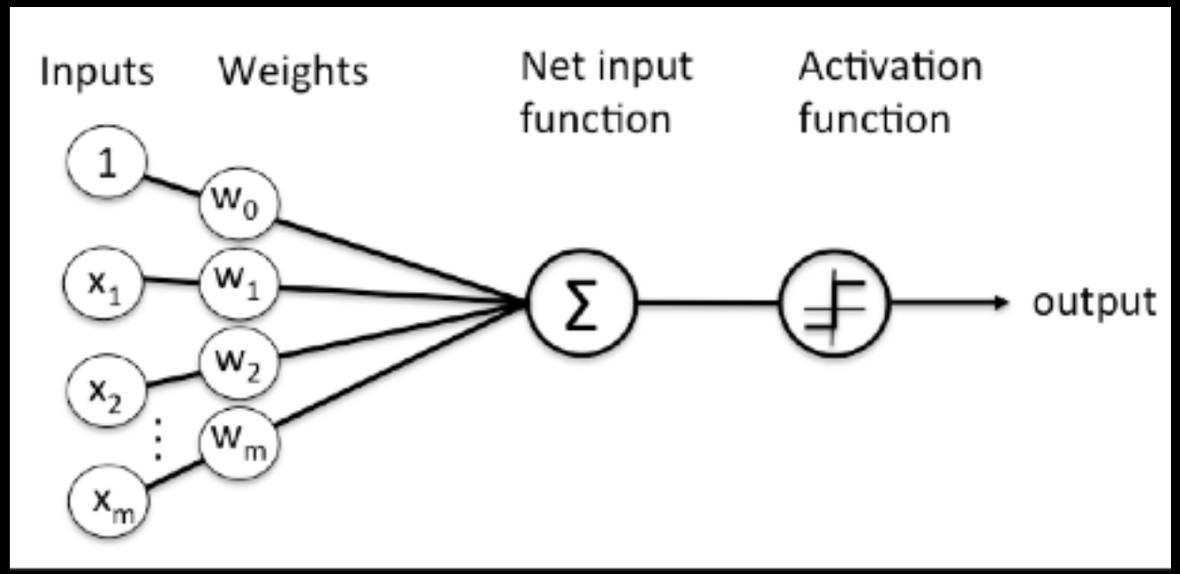

output layer
hidden layer
input layer

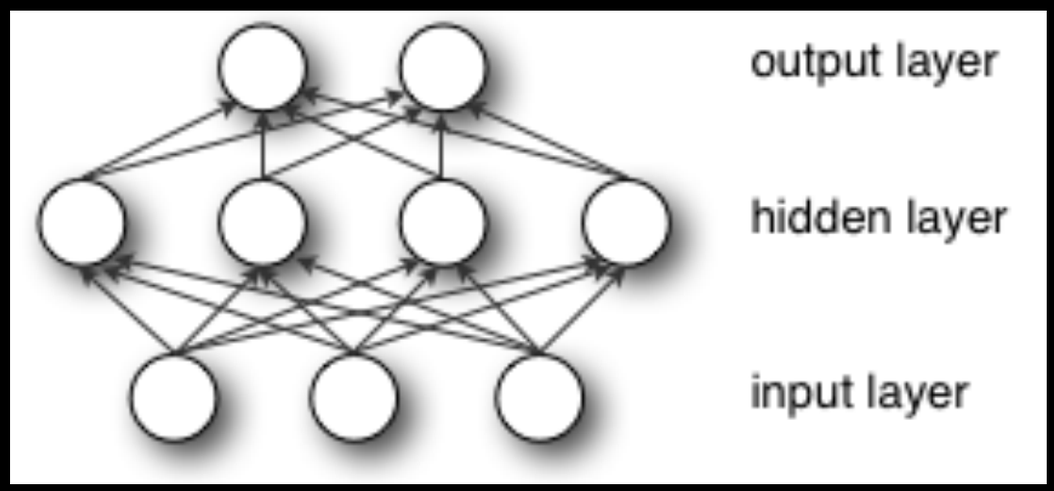
- **Neural networks** are a set of algorithms, modeled loosely after the human brain, that are designed to recognize patterns.

- **Neural nets** have several elements: inputs, weights on these inputs, a summing function, and an activation function that yields some output.

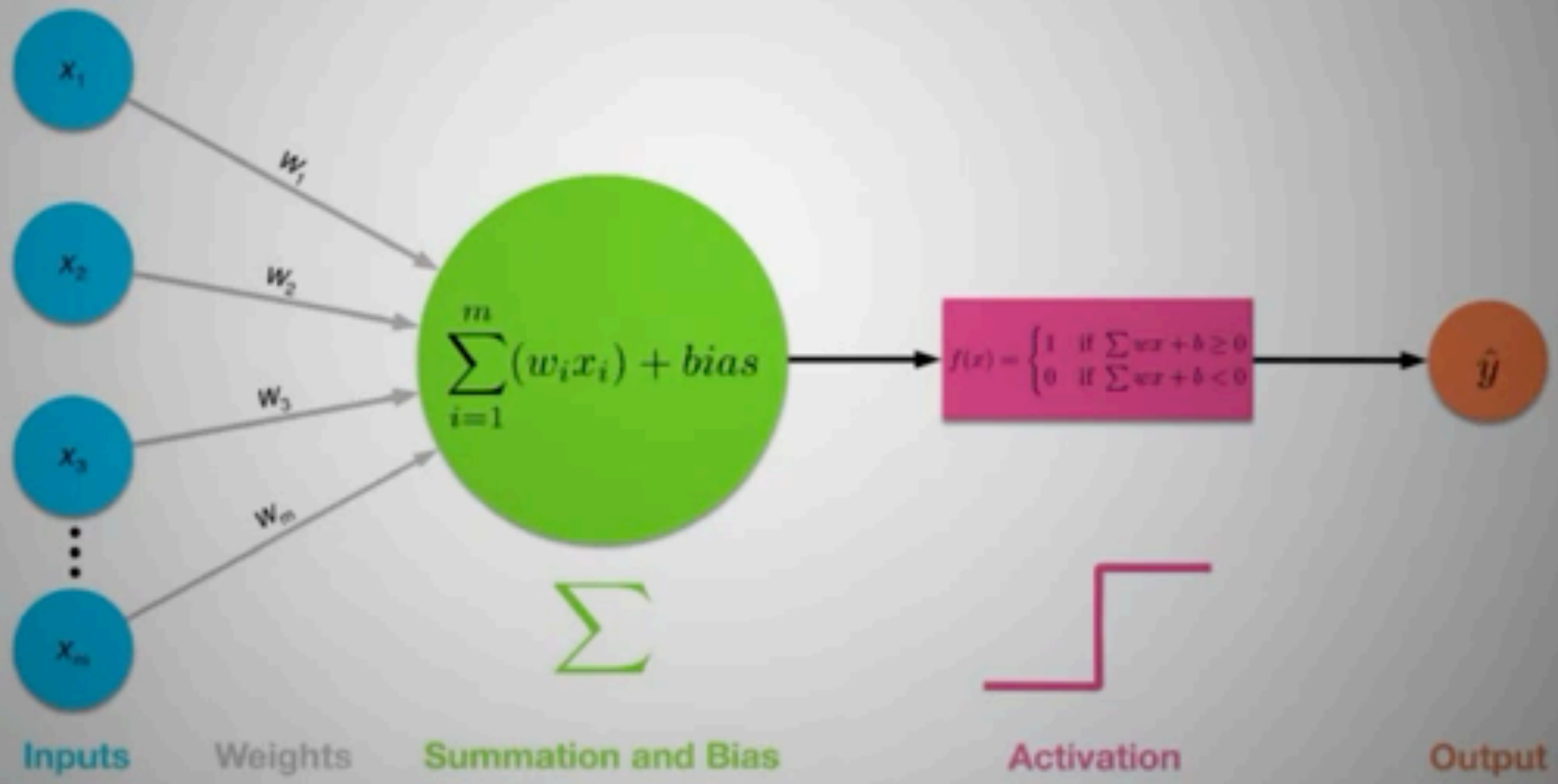
- These elements are organized as input, hidden, and output layers.

- They're a bit complicated, so watch the video on the next slide to see how they work a bit more closely.





ARTIFICIAL NEURON – THE HEART OF A NEURAL NETWORK



Inputs
Weights
Summation and Bias
Activation
Output