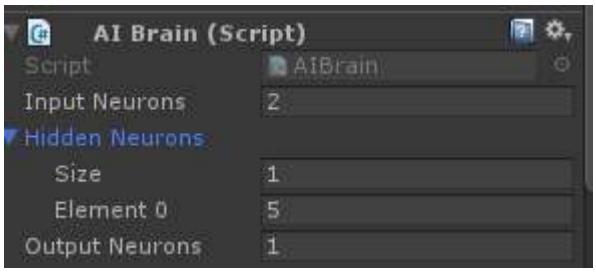
Introduction

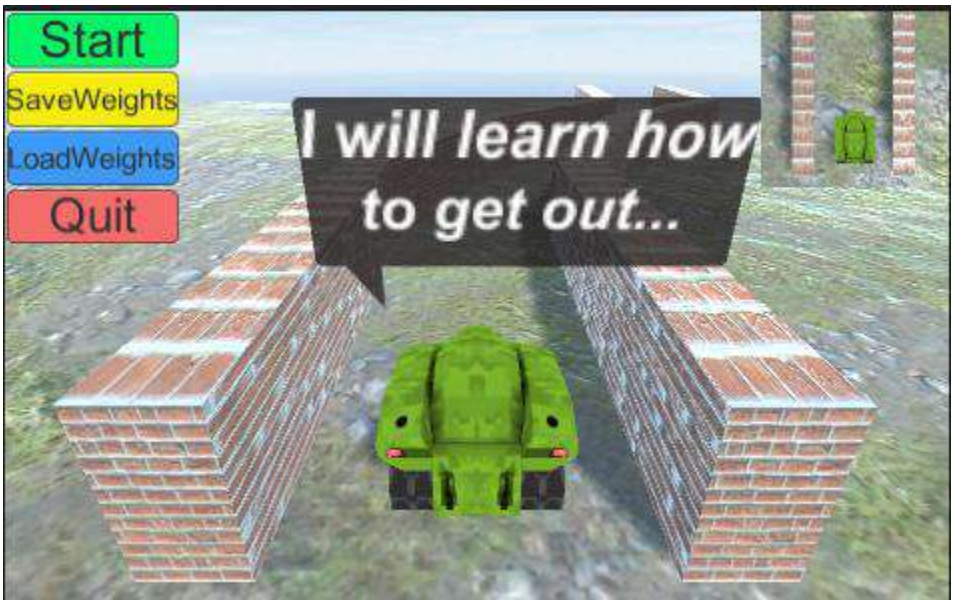
1.Setup

Make sure the *AI Brain* scripts is add to Tank GameObject and set the quantity of each layer's neuron

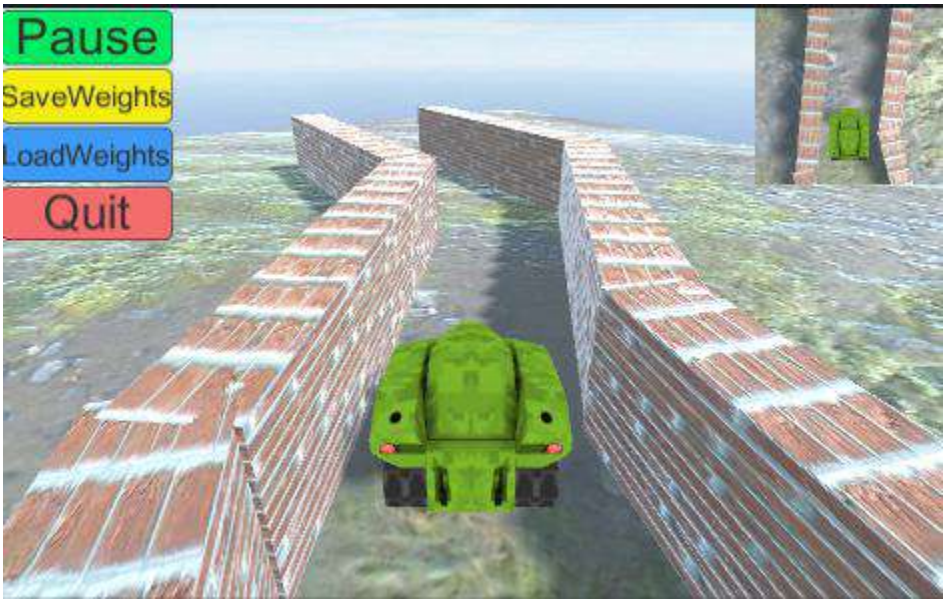


2.Run

Open the "*TankAIDemo"* scene*,*before start, it will show you this:



Put the start button to let the tank learns how to get out this place:



When the tank get out successfully,it means that tank have finished learning ,then You can see the tank shows this information to you:

Now,we can put the *SaveWeights button* to serialized each weights of neural networks's connection between two neuron:

Then put the *Quit* button and restart the game,put *LoadWeights* button to deserialized each weights of neural networks's connection between two neuron:

In the End, the tank could get out itself without learning process:

3.conclusion

1. The most important characteristic of ANNs is its ability to learn. To learn any behaviour you want through trainings.
2. When presented with training set where input and output values are known(between 0 and 1), ANNs model could be created to help with classifying new data.
3. The quantity of each layer's neuron can defined by the developer
4. The hidden neurons are the neurons that process the data, if theres a lot, the result will be more accurate but the learning will take more times, so try to keep in a approprate quantity. The quantity can be determined in base of how much inputs and outputs you have and also by the quantity of variations that the behaviour of the ANNs can have.
5. Results that are achieved by using ANNs are encouraging, especially in some fields like pattern recognition.
6. ANNs is getting more and more attention in last two decades.
7. BP algorithm is most popular algorithm used in ANNs.
8. It is one of the main reasons why ANNs are becoming so popular.