Why Neural Networks

Neural Networks can be used to train hardware to a specific task or precedure that is not commonly known yet, or too complicated to define clearly. The Neural Network acts like a brain and can learn the inputs and the outputs that will ultimately simulated the values required. One example of this is robotic learning. Robots are the new “bleeding edge” of technology and teaching them to do various tasks can be time consuming, especially for new roboticists. With the help of a “brain” their robots will be able to do what their creators desire without a huge amount of knowledge to create advanced algorithms. In essence the neural network will do this task for them. The RIT Robotics club has small robots that follow a line around a circle. With the application of this hardware defined neural network the club would be able to just slap on this device and watch the robot learn. The robot would be able to follow the line and learn the angle of the curve and be able to drive in a perfect circle with minimal error and readjustment along its path.