***Argumentation choices made:***

* Problem solving approach: use of Relu
  + ReLU stands for Rectified Linear Unit and it is a commonly used activation function in neural networks for solving problems related to classification and regression.
  + In a neural network, the activation function determines the output of a neuron based on the input it receives. The ReLU function is defined as f(x) = max(0, x), which means that it returns 0 if the input is negative and the input value itself if it is positive. This allows the network to easily learn and represent non-linear relationships between input and output. Using ReLU can help overcome the problem of vanishing gradients, which can occur when using other activation functions such as the sigmoid or tanh functions. Vanishing gradients can make it difficult for a neural network to learn and make accurate predictions, especially in deep neural networks with many layers. Overall, ReLU is a simple yet effective activation function that can improve the performance of a neural network, especially in deep learning tasks.
  + Usage of the number of layers and nodes.
    - Sonar: we use 3 hidden layers:
      * Input layer with 3 nodes
      * First hidden layer with 36 nodes
      * Second hidden layer with 24 nodes
      * Third hidden layer with 12 nodes
      * Output layer with 1 node
    - Lidar: we use 2 hidden layers:
    - Input layer with 16 nodes
    - First hidden layer with 64 nodes
    - Second hidden layer with 32 nodes
    - Output layer with 1 node.
  + Which number of epochs used and the learning rate:
    - The number of Epochs and the learning rate is a bit different between Sonar and Lidar:
      * Sonar: with a “low” learning rate (0.0008) yields the best accuracy rate. This in combination with 100 or 200 epochs
      * Lidar: finally, after try a different number of epochs and learning rate and batch size, we use 200 epochs with batch size of 64 and learning rate 0.008.
  + Which choices made with the integration of “trained self-steering module” in the existing software
    - We decided to “refactor” the “hardcoded copy” by adding code for the integration of our Sonar and Lidar models in the “…”Sweep class allowing to “manage” the steering angle through the trained model(s).