Requirement 11: NAO Bot Measurements

First, we started by researching the dimension specifications of the robot so as to reduce the precision and human error that we would have from measuring the NAO robot ourselves. This will help us to get as precise measurements as possible. Measurements will also be beneficial for understanding how the NAO robot will be able to interact with objects in its environment, such as playing cards. There is also potential that cards will need to be elevated to a certain level in order for the NAO robot to interact with and identify playing cards, which specific dimensions will allow us to implement. Measurements for the arms and fingers of the NAO are crucial since that will be what we perform most of our interactions with. We are using version 4 of the NAO bot.

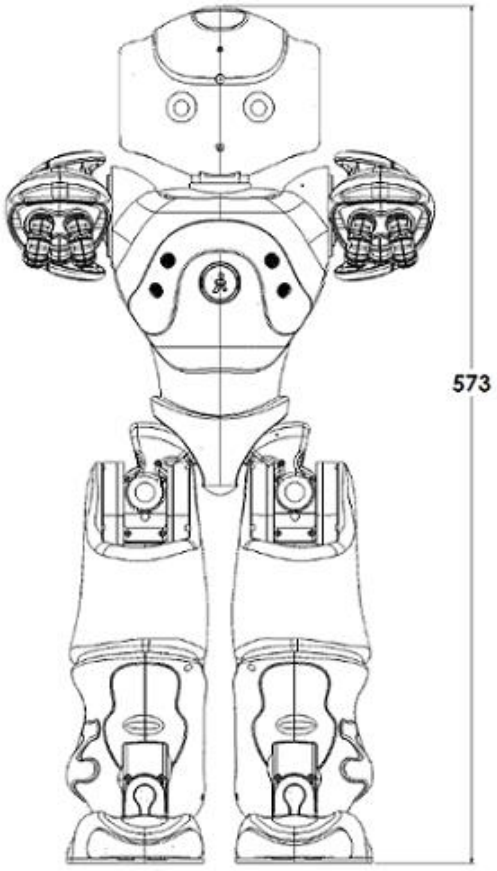

Figure 1: Height of NAO (in mm)

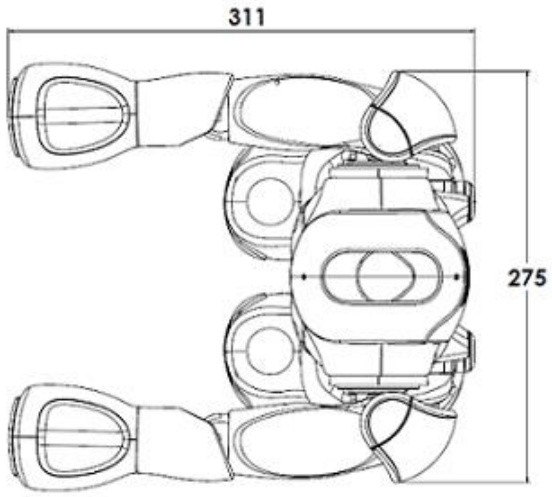

Figure 2: Width and Depth of NAO (in mm)

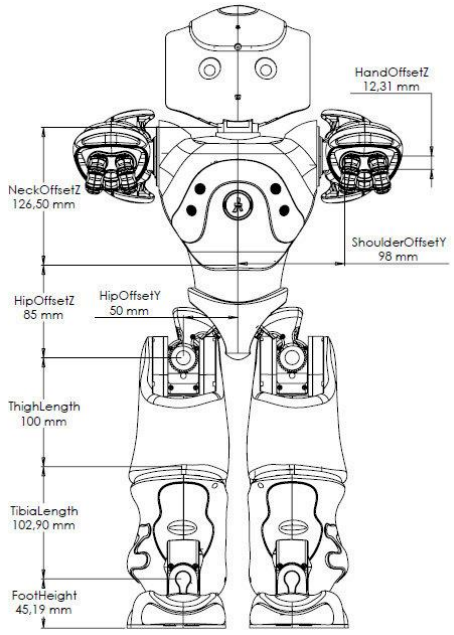

Figure 3: Individual Components Measurements

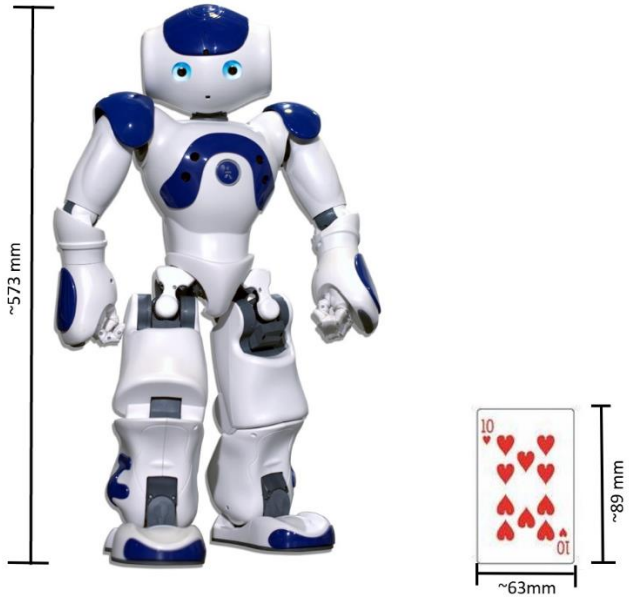

Figure 4: Size Comparison of NAO and Card (Not 100% to scale)

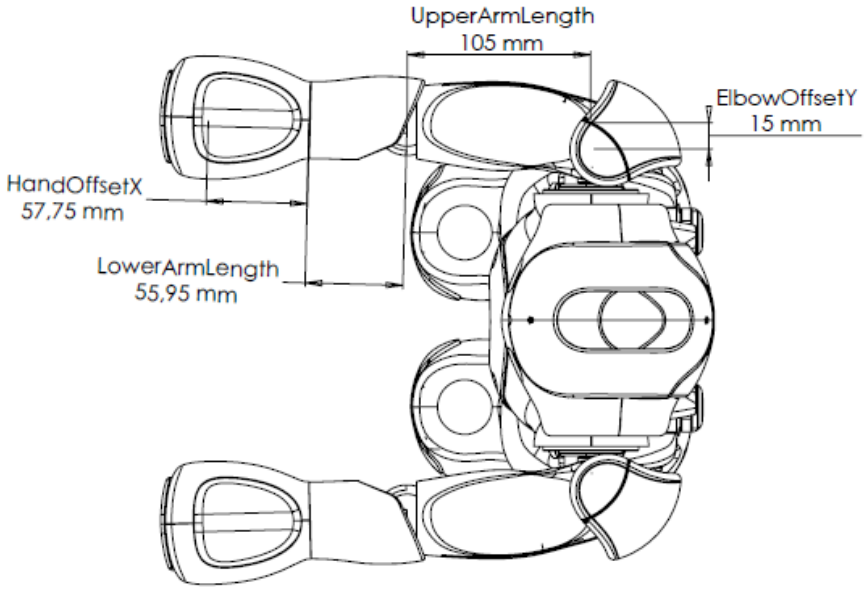

Figure 6: Arm Segment Lengths

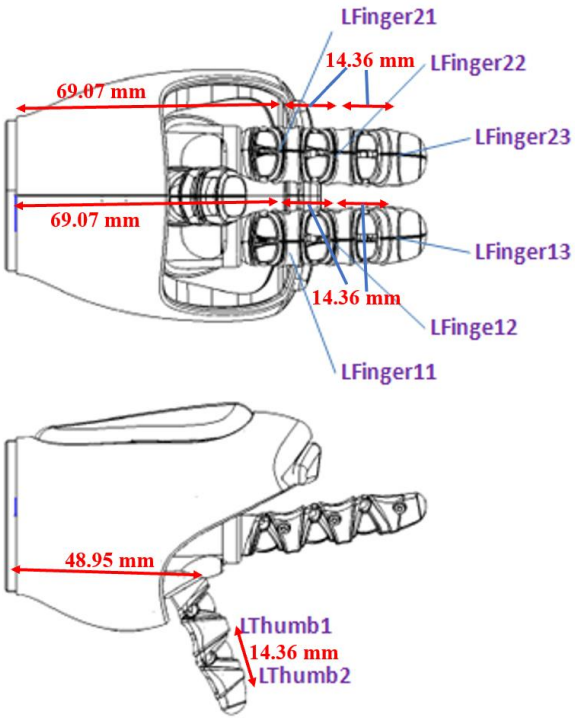

Figure 6: Hand Measurements (Symmetric Left and Right Hands)

Resources:

Dimensions — NAO Software 1.14.5 documentation (aldebaran.com)

H25 - Links — NAO Software 1.14.5 documentation (aldebaran.com)