

This Choregraphe file starts by sending a signal to the say block that makes the Nao ask the user what game they want to play. Next a signal is sent to the speech recognition block which listens for the words rock, paper, and scissors. When it hears one of these words it sends a signal to the next say block, making the bot say "Ok" before sending another signal off. After this the next two blocks make the Nao move into a neutral position and start the animations for playing rock paper scissors. The next block generates a random int between zero and two which is sent to a switch case that will send a signal to either do the rock, paper, or scissors animation depending on which int is sent to it. Each of these animation blocks has a corresponding python script that sends its associated int to the next python script, the code comments for both of these scripts can be found within the Github. The first script takes a photo of the user's hand and stores it within a file in the Nao, finally waiting three seconds before sending the go ahead signal to the next block. This second major script box searches in the same internal file for a file with text sent from the server that has the detected gesture, it takes this gesture and compares it with the robots gesture and outputs a number to decide if the user won, lost, or tied the game. The following switch case makes this decision, with a fourth option to catch any errors. Finally the robot moves back to a neutral position before asking the user if they want to play again, listening for a "yes" or "no" and either playing the game again or going into a rest state and ending the program.