# Effect of Hesitation on Perception of Intelligence

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Throughout the semester, our team was incredibly well balanced in the amount of work we contributed to the project. We preface the list of our contributions with this statement because most of our work was done collaboratively, so while we each contributed to these areas a fair amount, everyone contributed to each part of the project.

**Colin Dunn**

My contributions are as follows:

- I wrote the Choregraphe flowcharts, figuring out how to use the move, score, and hesitation results to direct gameflow.
- I helped develop the grabbing motion, figuring out how to use Choregraphe to store joint positions.
- I wrote the algorithm for determining the numbers of moves to take, and whether or not to hesitation.
- I wrote the updated code for the color perception, which used PIL instead of OpenCV.
- I wrote the Java code for the simulation.
- I found a way to run our external python code from Choregraphe.
- I helped build the ramp, the blocks, and the chair for the NAO.
- I found and edited sounds to use for the hesitation and thought trials, and styled them to sound similar to the NAO's voice.
- I transferred all of our time and survey data to manageable spreadsheets.
- I conducted 5 trials and assisted in some others.
- I wrote one third of the final paper.

**Nicholas Gonzalez**

My contributions are as follows:

- I wrote the initial python code for color perception before we discovered OpenCV was not easily compatible with the NAO.
- I helped debug color perception - both in code and through attempting to use extra light sources.
- I became certified in the CEID and 3D printed all of the pieces.
- I helped build the ramp for the blocks and the chair for the NAO.
- I helped develop the grabbing motion.
- I helped debug the NAO's posture and positioning - contributing ideas as to how to solve the issue of joints getting too hot and the NAO losing its balance.
- I ran several trials against the simulation to test normal human hesitation time.
- I found and edited sounds to use for the hesitation and thought trials.

- I created the final presentation, and edited the videos for it.
- I created the qualtrics survey for participants to submit (https://yalesurvey.qualtrics.com/SE/?SID=SV_3gd7iuVZDIi7wJD).
- I created the online sign up form (https://naotaketwo.typeform.com/to/qM4aSj).
- I conducted 10 trials and assisted with a few others.
- I wrote a third of the final paper and styled it in Latex.

**Danielle Zucker**

My contributions are as follows:

- I became CEID certified so we could construct props for the NAO to use.
- I helped build the ramp and the blocks for the NAO.
- I painted the ramp and several versions of the NAO's block.
- I was in charge of scheduling participants, including keeping the calendar and sending the confirmation emails.
- I conducted almost 30 trials.
- I performed hours of error-checking and debugging between trials.
- I added the robot's introduction to participants, trying several options
- I helped with developing the robot's block-grabbing ability, and designing the cubes that are easier to grab.
- I ran several trials against the simulation to test normal human hesitation time.
- I found samples of mechanical sounds for the robot to play during neutral noise trials.
- I made the second check-in powerpoint slides and helped with the creation of the third powerpoint.
- I wrote a third of the final paper and made the final edits.