

PRESENTATION OF SELF IN MACHINE LIFE

A HUMAN-MACHINE COLLABORATION

BY RAY LC WITH MIZUHO KAPPA

[HTTPS://RECFRO.GITHUB.IO/PRESENTATION-OF-SELF/](https://recfro.github.io/presentation-of-self/)

TECHNICAL RIDER



The world has been driven apart by recent events, making long distance performative interventions at scale difficult to achieve, especially those employing in-person collaboration between humans and machines. How shall we reclaim a tangible exchange between the people at the scale across the world that has presence and meaning, as opposed to impersonal virtual interactions? We created and choreographed and an art technology performance exchange that would allow viewers in Berlin to immerse themselves in a collaborative narrative space between a dancer in New York and a robot arm in the Studio for Narrative Spaces in Hong Kong. The performance can be shown in either online or offline form to audiences, who witness the narrative of a dancer and a robot who communicate with each other through movement, sometimes leading one another, sometimes frustrating each other, but always communicating as if each other are present to each other across a 12 hour divide. The performance crosses both the scale of space (Berlin, New York, Hong Kong), and the scale of time (morning in New York, afternoon in Berlin, night in Hong Kong), applying human movement and robotic interaction to narrate the meaning of presence and our relationship with technology that challenges our vision and perception of limits of our capabilities across the space-time divide.

In previous iterations, we have enabled a morning performance in New York presented by renowned dancer Mizuho Kappa and choreographed by RAY LC, which is simultaneously streamed live in the evening at the School of Creative Media in Hong Kong, where a robot arm enacts the movements undertaken by Mizuho. The live stream from Hong Kong is also shared with New York, enabling Mizuho and RAY to interactively alter the dance movements and choreography live through visual comparison with the robot in a collaborative digital space. The robot imitates Mizuho's head using its hand and her body using its arm. The choreography follows Mizuho as she steps outside the digital realm of the virtual platform and into the physical stage, enticing the robot to dance with her. The robot starts with only block-like

movements but eventually learns to mimic her with his body. Still he cannot run around or use hands like Mizuho, and eventually seeks help. Soon Mizuho begins performing actions that the arm is not capable of, such as jumping and lying flat on the ground, leading the robot to wonder on his own: is there also something I can do that the human cannot? For Transmediale, we show live audiences the video feed to both the dancer and the robot arm together in side-by-side and picture-in-picture forms. When Mizuho dances on her own, the focus will be on her on the projection, and vice-versa for the robot. When they collaborate, viewers will see them side-by-side. Projection should be approx. 4x2.25m.

Script: 25sec - Mizuho meets robot; 30sec - Mizuho tries to lead robot to dance; 45sec - Mizuho and robot failed convo; 20sec - Mizuho run around but robot cannot do, feels upset; 20sec - Mizuho lead robot but find it difficult so she leaves stage (robot same simple); 30sec - Robot interact with audience for help; 1:30 - robot solos to get better and better; 45sec - Mizuho reenters and Mizuho solo (robot poor imitation); 1:30 - Mizuho and robot step slowly together; 1:30 repeat of previous but only robot followed by robot power off; 45sec - Mizuho powers on robot and step fast together; 1:45 - Robot no longer wants to follow, wants to do its own movements, Mizuho tries to control robot and gets increasingly frustrated; 20sec - Breakdown in communication between Mizuho and robot (expressionistic); 5sec - Mizuho walks in to break the zoom, severing the communication with the robot, which also breaks down the robot.

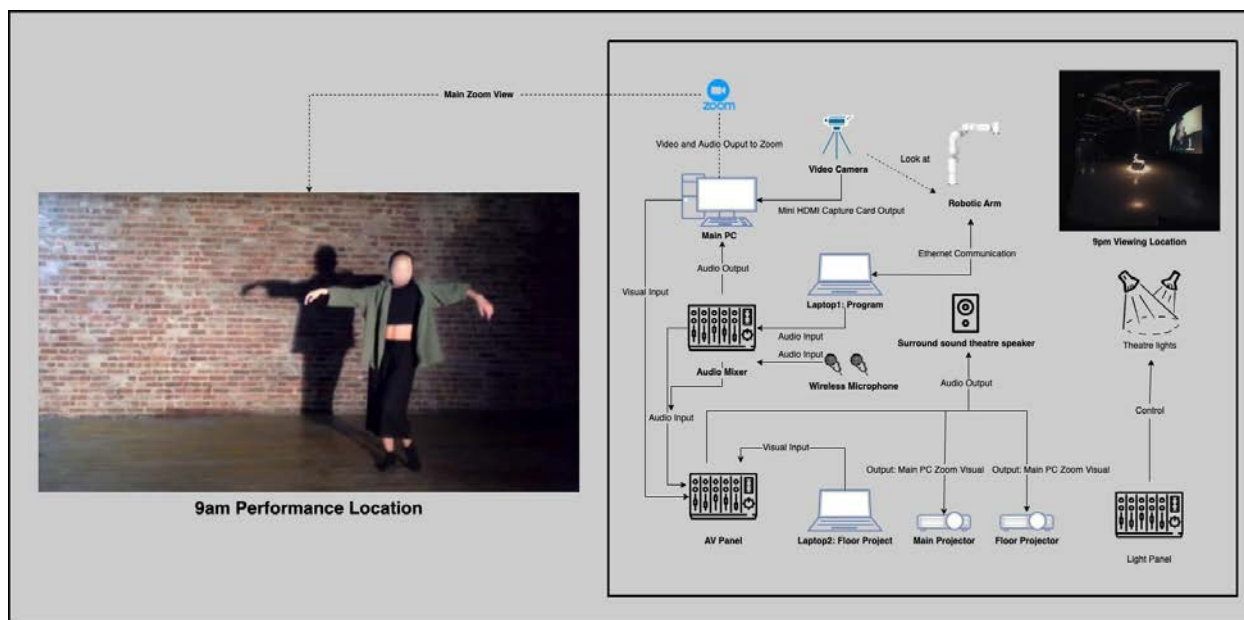


Figure 1: Performance setup in Hong Kong and New York. The stream shown to live audiences are the dancer to the left and the robot on the upper right. When dancer or robot solos, their view takes precedence with the other participant as picture-in-picture on the lower right. When collaborating, their views will be side-by-side on the audience's view. At the viewing site, a ~4x2.25m projection is needed.

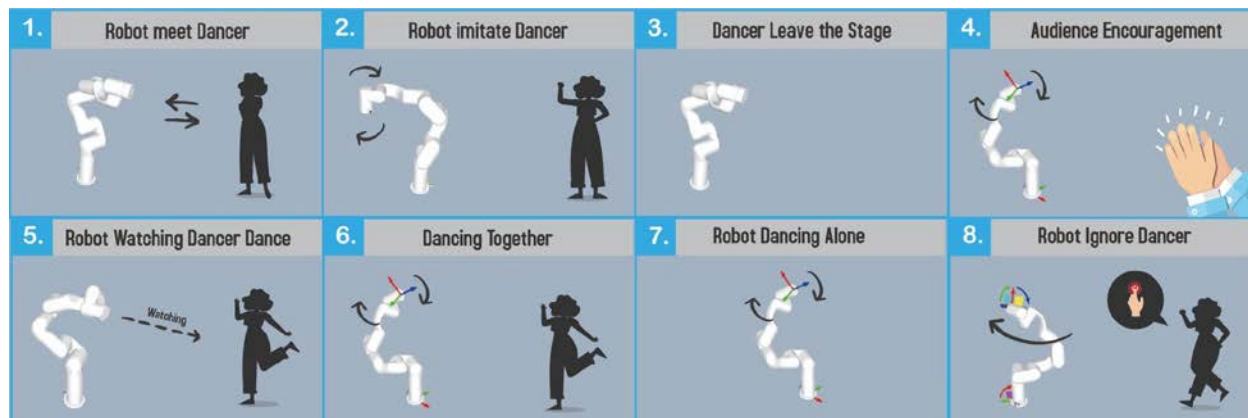


Figure 2: Robot and dancer collaborations during the narrative performance. Interactions are implemented in New York (dancer Mizuho) and in Hong Kong (robot controlled interactively by staff).

Video 1: Teaser of the robot movements for general audiences [<https://youtu.be/Wl0HR87xiGs>].

Video 2: Documentation of previous performances with original music [<https://youtu.be/r4QgyxcBLC8>].