

Pneunocchio: A playful nose augmentation for facilitating embodied representation



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Motivation

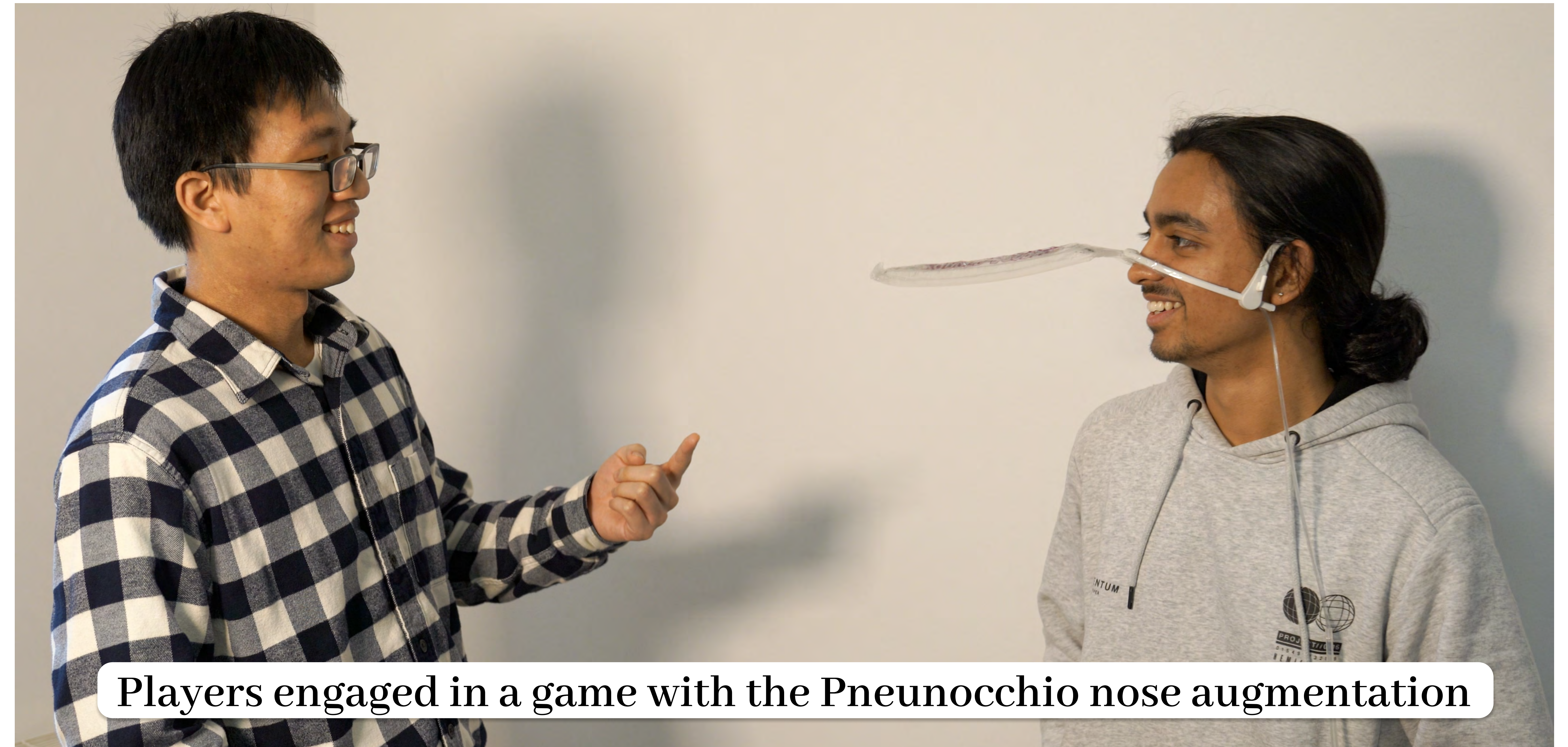
Pneunocchio is a playful experience around a pneumatic nose augmentation centred around a popular party game, Two Truths and a Lie and inspired by the Pinocchio lore. Through Pneunocchio, we aim to explore the effect of a nose-based body augmentation facilitated by the physiological response on a player's perception of their body when involved in a playful experience of lying, i.e., the nose grows in size when the player lies. In a preliminary user study, we found out that Pneunocchio was able to provoke thought among the players and prompted responses associated with identifying themes across the three statements and understanding what a lie was in actuality and how it was perceived by the system

Game Design

Pneunocchio is a two-player game played along with a system. The game begins with a player wearing the nose augmentation presenting three statements, out of which two are true, and the other is a lie. The second player then selects the statement which they think is a lie. Then, both of the players proceed to check with the system to identify the lie across the three statements sequentially. The system, based on the physiological signals it received from the player with augmentation, inflates the nose when checking one of the three statements. Each player takes two turns to wear the augmentation and play the game.

Implementation

We used a 0.8mm PE sheet to create an inflatable along spring mechanism for the augmentation to fold when not in use such that it doesn't interrupt the player's field of view. For sensing the physiological signals from the player's body, we used Emotibit. Through Emotibit, we leveraged variability in heart rate through PPG and increase in skin conductance through EDA as an identifier for a lie being told. The Emotibit communicates with an off-the-shelf pneumatic controller, Programmable Air, to inflate the augmentation when the players check the statements.



Players engaged in a game with the Pneunocchio nose augmentation

