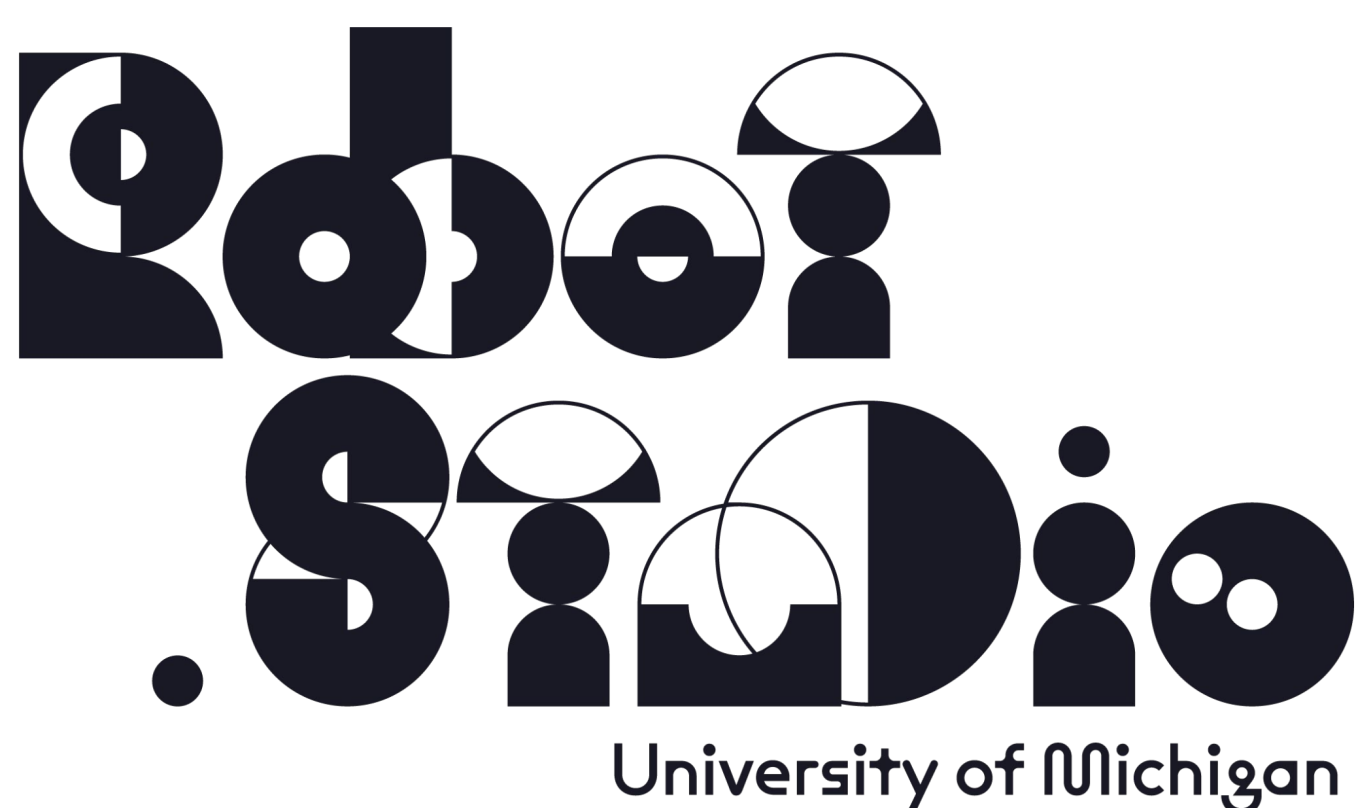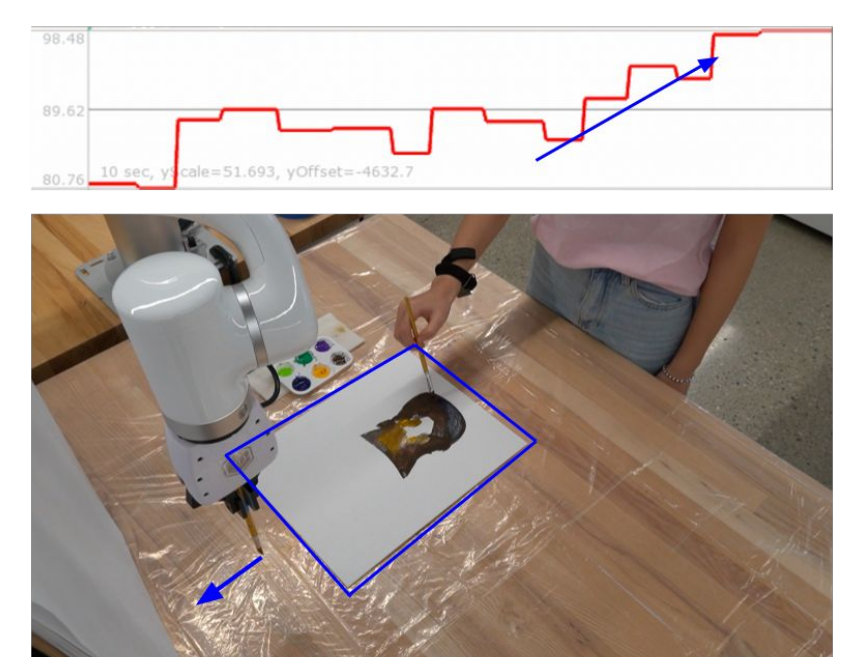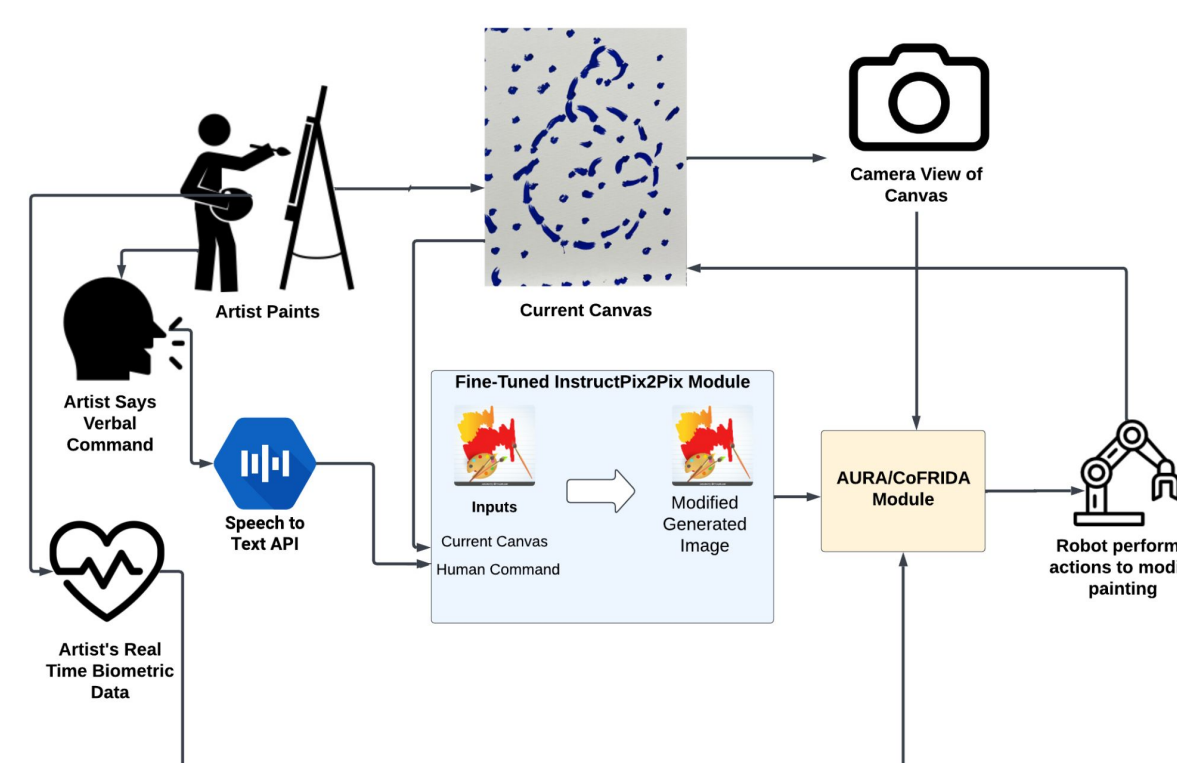# painted heart beats

Painted Heart Beats

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System design.

We present AURA, a framework for synergetic human-artist painting. We developed a robot arm that collaboratively paints with a human artist. The robot has an awareness of the artist's heartbeat through the EmotiBit sensor, which provides the arousal levels of the painter.

Robot reaction to increased heart rate.

Given the heartbeat detected, the robot decides to increase proximity to the artist's workspace or retract. If a higher heartbeat is detected, which is associated with increased arousal in human artists, the robot will move away from that area of the canvas.

If the artist's heart rate is detected as neutral, indicating the human artist's baseline state, the robot will continue its painting actions across the entire canvas. We also demonstrate and propose alternative robot-artist interactions using natural language and physical touch.

This work combines the biometrics of a human artist to inform fluent artistic interactions.

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