# Air Canvas using Media Pipe for Computer Vision in Unity 3D Hand Tracking

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**Abstract***: This paper introduces "Air Canvas," a gesture-controlled 3D drawing system that integrates MediaPipe's real-time hand-tracking with Unity's AR Foundation framework. By combining MediaPipe's machine learning-driven hand landmark detection with AR Foundation's augmented reality capabilities, Air Canvas enables users to draw in a 3D virtual space using natural hand gestures captured via a webcam. The AR Foundation template streamlines development with pre-configured AR components, enhancing immersion and stability. The system achieves seamless gesture recognition and real-time rendering, offering applications in education, digital art, and human-computer interaction (HCI). As an open-source tool, Air Canvas provides a customizable platform for AR-based research and development.*

**Keywords:** Air Canvas, Hand Tracking, MediaPipe, Unity 3D, AR Foundation, Gesture Recognition