

The amount of diversity in AR markers is surprising. Although there are plenty of types that all have pros and cons, the two most helpful in today's climate are "frame" and "GPS" markers.

Frame markers are arguably the most practical kinds of markers when it comes to the current state of AR software capabilities. This type of marker involves a two dimensional image of a square with heavily contrasting colors; the most common being black and white. The reason this is highly practical is because the camera and software will have a much easier time recognizing a foreign object with unnatural shapes and colors. This type of marker is similar to "image" markers in the way they both recognize a specific two dimensional object, however, thanks to the contrasty colors of frame AR, the software should not run into issues of seeing something else in the camera that could obscure recognition of the frame.

GPS markers are another more practical application of AR, however, software limitations keep it from taking the number one seat. GPS allows everyday objects and structures such as buildings and landmarks around the globe to become instant markers. These are fantastic to use because unlike a two dimensional image on a piece of paper, a whole structure cannot be moved around or obscured easily, making a permanent and consistent marker for the software to check for. This advantage also allows the software to accurately measure movement speed and location based on a player's position relative to the consistent markers. One major con to this technology though is the accuracy of GPS itself. Satellites cannot pinpoint a location with 100% accuracy as of now, which means that in an AR game like Pokemon Go that utilizes GPS markers, placement of objects and structures in the game will be slightly off from how they appear in real life.