

≡ Item Navigation

Learning checkpoint - fundamentals of ARCore

- ARCore integrates virtual content with the real world as seen through your phone's camera and shown on your phone's display with technologies like motion tracking, environmental understanding, and light estimation.
- Motion tracking uses your phone's camera, internal gyroscope, and accelerometer to estimate its pose in 3D space in real time.
- Environmental understanding is the process by which ARCore “recognizes” objects in your environment and uses that information to properly place and orient digital objects. This allows the phone to detect the size and location of flat horizontal surfaces like the ground or a coffee table.
- Light estimation in ARCore is a process that uses the phone's cameras to determine how to realistically match the lighting of digital objects to the real world's lighting, making them more believable within the augmented scene.
- Feature points are visually distinct features in your environment, like the edge of a chair, a light switch on a wall, the corner of a rug, or anything else that is likely to stay visible and consistently placed in your environment.
- Concurrent odometry and mapping (COM) is a motion tracking process for ARCore, and tracks the smartphone's location in relation to its surrounding world.
- Plane finding is the smartphone-specific process by which ARCore determines where surfaces are in your environment and uses those surfaces to place and orient digital objects. ARCore looks for clusters of feature points that appear to lie on common horizontal or vertical surfaces, like tables or walls, and makes these surfaces available to your app as planes. ARCore can also determine each plane's boundary and make that information available to your app. You can use this information to place virtual objects resting on flat surfaces.
- Anchors “hold” the objects in their specified location after a user has placed them.
- Motion tracking is not perfect. As you walk around, error, referred to as drift, may accumulate, and the device's pose may not reflect where you actually are. Anchors allow the underlying system to correct that error by indicating which points are important.