



Robotic Perception

Sensor: Depth Sensor

Yezhou Yang, Ph.D.

Assistant Professor

Zhiyuan Fang, Teaching Assistant

Arizona State University

Depth Sensor



Kinect, Microsoft

“Kinect for Windows,” Kinect - Windows app development. [Online]. Available: <https://developer.microsoft.com/en-us/windows/kinect>. [Accessed: 10-May-2019].

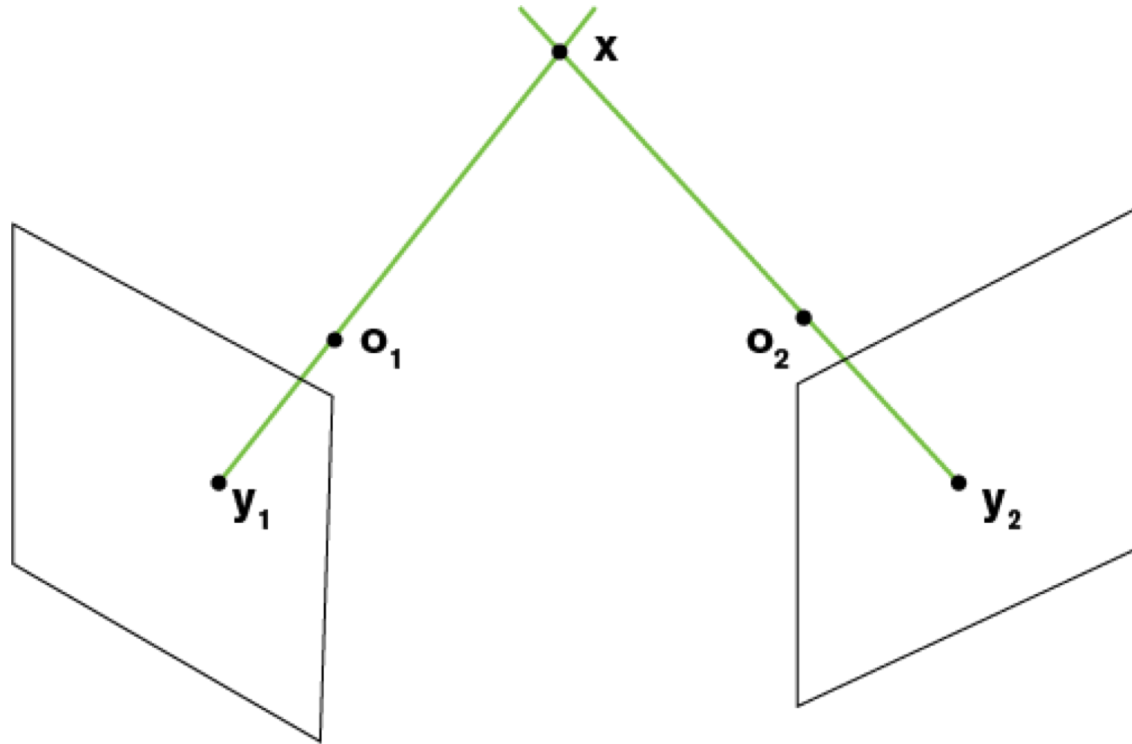
Depth Sensor



Depth Image

“Adaptive Depth-map Coding for 3D-Video - ResearchGate.” [Online]. Available:
https://www.researchgate.net/profile/Gwang_Park/publication/220235505_Adaptive_Depth-Map_Coding_for_3D-Video/links/5774eb4608ae1b18a7df9b32.pdf?origin=publication_detail. [Accessed: 09-May-2019].

Stereo Triangulation



Triangulation

- The two projection lines (green lines) can be determined and they intersect at point x (3D point).

ZED camera



ZED, stereolabs

“ZED stereo cameras,” stereolabs. [Online]. Available: <https://www.stereolabs.com/zed/>. [Accessed: 10-June-2019].