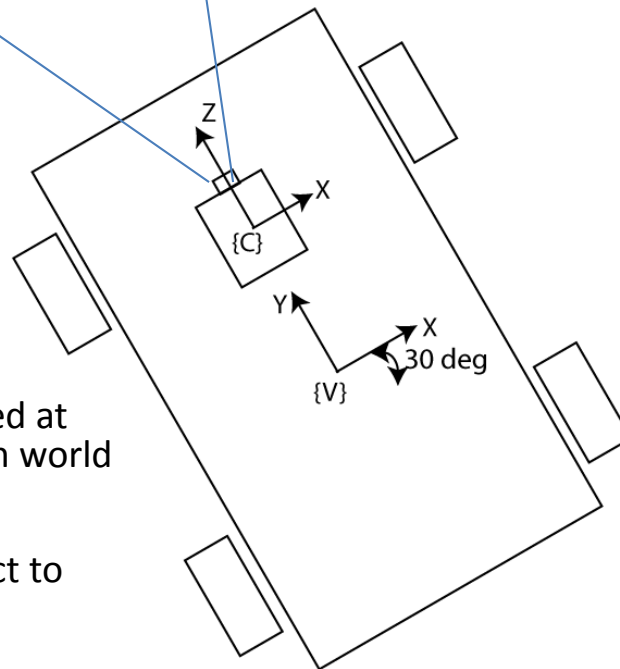
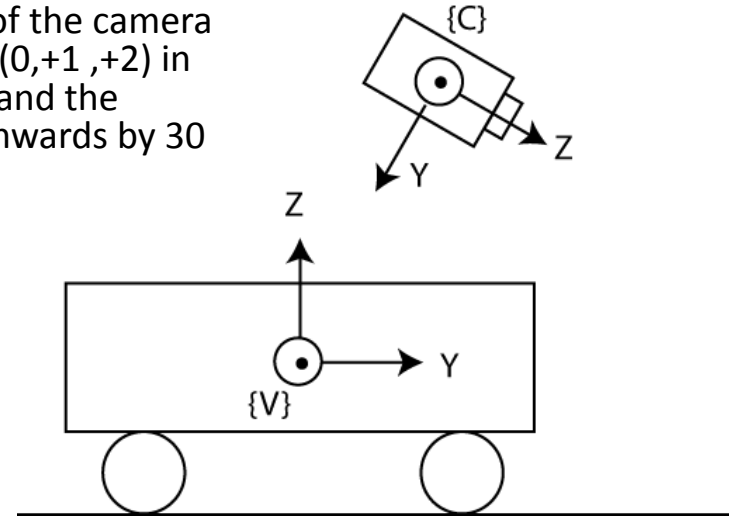


- A camera is mounted on a robot vehicle. The center of the camera is located at  $(X,Y,Z) = (0,+1,+2)$  in vehicle coordinates, and the camera is tilted downwards by 30 degrees



- The vehicle is located at  $(X,Y,Z) = (+4,-4,+1)$  in world coordinates, with a rotation angle of 30 degrees with respect to the world.

- The camera observes four points on the ground, with world coordinates at  $(0,0,0)$ ,  $(1,0,0)$ ,  $(1,1,0)$ , and  $(0,1,0)$ .
- Problem: transform the points from world coordinates to camera coordinates