



Take position ratio of the tag in  
the image as input

Set (LIDAR element) = (position ratio)  
\* (LIDAR array size)

Get (distance) information from  
LIDAR element from previous step

Set (orientation) = (position ratio - 1/2) \*  
(field of view angle)

Set (Cartesian X) = (distance) \*  
 $\cos(\text{orientation})$

Set (Cartesian Y) = (distance) \*  
 $\sin(\text{orientation})$

Store and return the relative  
Cartesian position of the tag

