

Okay, I think I was misunderstanding the problem. If the size of a pixel in the camera is $3.75 \cdot 10^{-6}$ m, then if the screen is 3 feet away we get a pixel-equivalent size on the plane of:

$$\frac{3.75 \cdot 10^{-6}}{f} = \frac{x}{.914 - f} \quad (1)$$

where f is the focal length of the camera and x is the size of the image on the plane. I looked up some lenses online and found [this](#) link with a list of lenses compatible with the GT1290. I'm not sure which lens is should be, but since they range from 2.8 to 35mm, the x we should get should be between the range of .094 mm to 1.2 mm. If we wanted the camera to pick up 3 pixels on a fiducial then the fiducial should be between .28 mm and 3.6 mm.