



# Rectangular images from fisheye camera

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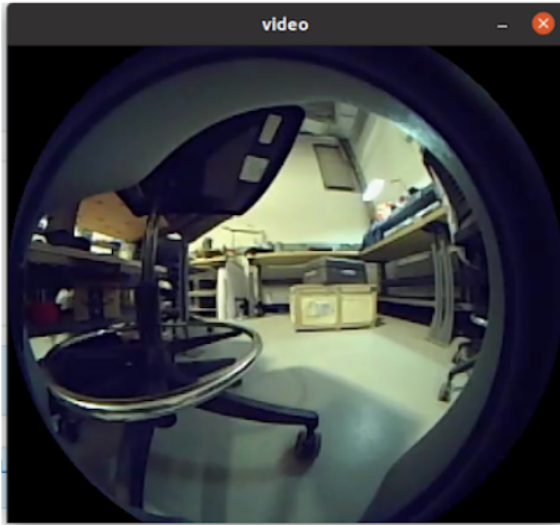


Figure 1: Original fisheye image



Figure 2: Converted image received

Goal	Wireless image transmission between my laptop and Unitree cameras
Facts	There are four computers inside the Unitree robot: three Jetson Nano and one Raspberry Pi. Raspberry is the main control board. Each Nano controls and processes a pair of fisheye cameras. To gain images from the head camera, I need to have my laptop talk with that Jetson Nano.
The previous situation	In the last progress review, I was able to receive skewed images wirelessly from Unitree fisheye cameras. The program running on my laptop is <code>/UnitreecameraSDK/examples/example_getimagetrans.cc</code> ( <a href="#">Modified</a> )
Possible Solutions	1. process the skewed images with my own program 2. use the example program in Unitree camera SDK. 1. The program running on Nano Jetson that de-fish the images is <code>/UnitreecameraSDK/examples/example_putimagetrans.cc</code> 2. The program running on my laptop that receives the de-fished images is <code>/UnitreecameraSDK/examples/example_getimagetrans.cc</code> (Unmodified)
Connie's choice	I chose B because the original circular image is covered by the camera frame (Figure 1). It's extra work to determine how to get rid of unwanted parts of an image and merge images from the left eye and the right eye. The quality of the converted images is good (Figure 2) and the tutorial looks easy to follow. I wanted to use <code>example_putimagetrans.cc</code> on Nano and wirelessly send rectangular images to my laptop.
Next step	Configure Linux network