

RSonCreate.py flow

Using Python Multiprocessing

Process	Main	Cam_process	Tag_broadcast	Dist_broadcast
Function name	main	camera_worker	udp_broadcast	udp_broadcast
Initialization	Serial port to Create TCP connection to host Spawn camera process	Apriltag detector Data queues for tag and dist Camera configuration Start the camera stream Frame alignment Get camera information Spawn tag broadcast process Spawn dist broadcast process	UDP port	UDP port
Loop	Check for command from host Transmit to Create Check for data from Create Transmit to host	Get camera RGB and depth frames Calculate distance from depth frame Write to distance data queue Calculate tag pose from RGB + depth frames Write to tag data queue	Check queue for data Calculate delays Broadcast tag data	Check queue for data Calculate delays Broadcast distance data
Clean up	Close serial port Terminate child process Close TCP connection		Close UDP port	Close UDP port