view frames Result Recorded at time: 1650489671.7453537 map Broadcaster: /camera init to map Average rate: $9\overline{9}.35\overline{9}$ Buffer length: 4.982 Most recent transform: 1650489671.735 Oldest transform: 1650489666.753 camera init Broadcaster: /mapOptmization Broadcaster: /transformFusion Broadcaster: /featureAssociation Average rate: 10.117 Average rate: 10.117 Average rate: 2.704 Buffer length: 4.942 Buffer length: 4.942 Buffer length: 4.438 Most recent transform: 1650489671.274 Most recent transform: 1650489671.677 Most recent transform: 1650489671.677 Oldest transform: 1650489666.735 Oldest transform: 1650489666.735 Oldest transform: 1650489666.836 laser odom aft mapped Broadcaster: /base link to camera Average rate: 99.359 Buffer length: 4.972 Most recent transform: 1650489671.735 Oldest transform: 1650489666.763 Broadcaster: /vlp16 merged to vlp16 merged base link Average rate: 99.359 Buffer length: 4.982 Most recent transform: 1650489671.735 Oldest transform: 1650489666.753 Broadcaster: /vlp16 merged base link to base link Average rate: 99.359 Buffer length: 4.982 Most recent transform: 1650489671.735 Oldest transform: 1650489666.753 Broadcaster: /base_link_to_vlp16 port base link Broadcaster: /base link_to_vlp16_starboard_base_link Average rate: 99.359 Buffer length: 4.972 Most recent transform: 1650489671.735 Most recent transform: 1650489671.735 Oldest transform: 1650489666.763 Oldest transform: 1650489666.763 vlp16 starboard base link Broadcaster: /vlp16 port base link to vlp16 port Broadcaster: /vlp16 starboard base link to vlp16 starboard Average rate: 99.359 Buffer length: 4.972 Most recent transform: 1650489671.735 Most recent transform: 1650489671.735

Oldest transform: 1650489666.763

camera

vlp16 merged

 $vlp16_merged_base\ link$

 $base_link$

Average rate: 99.359

Buffer length: 4.972

Average rate: 99.359

Buffer length: 4.972

Oldest transform: 1650489666.763

vlp16 starboard

vlp16 port base link

vlp16_port