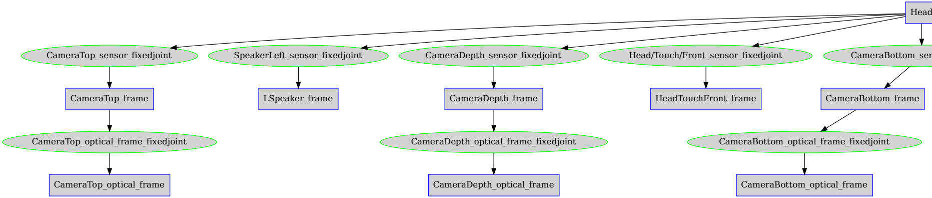
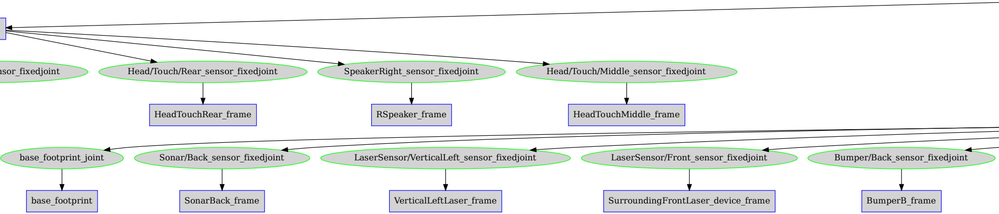
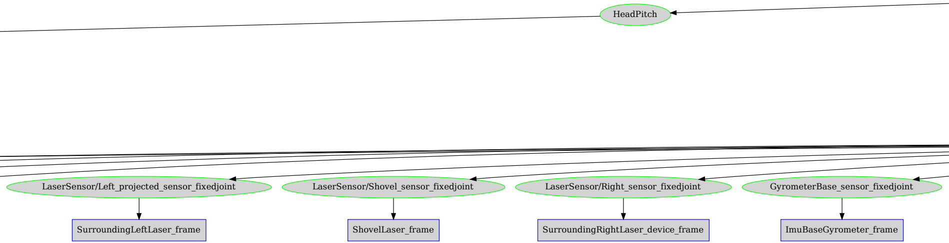
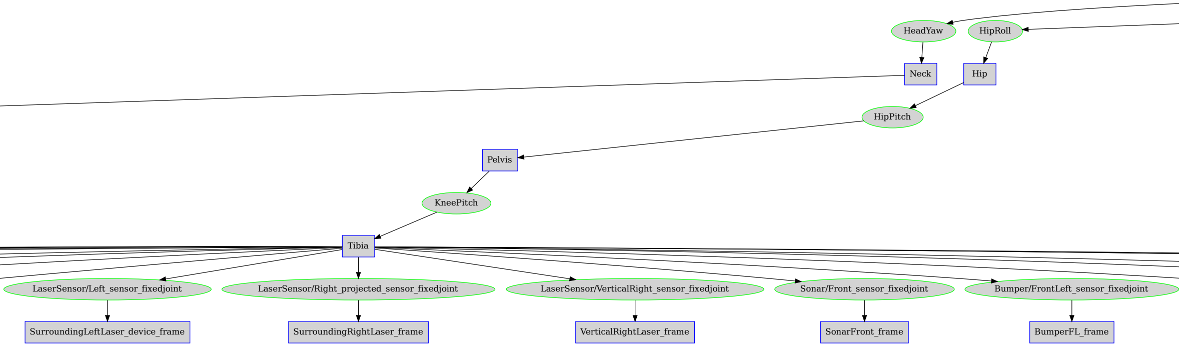
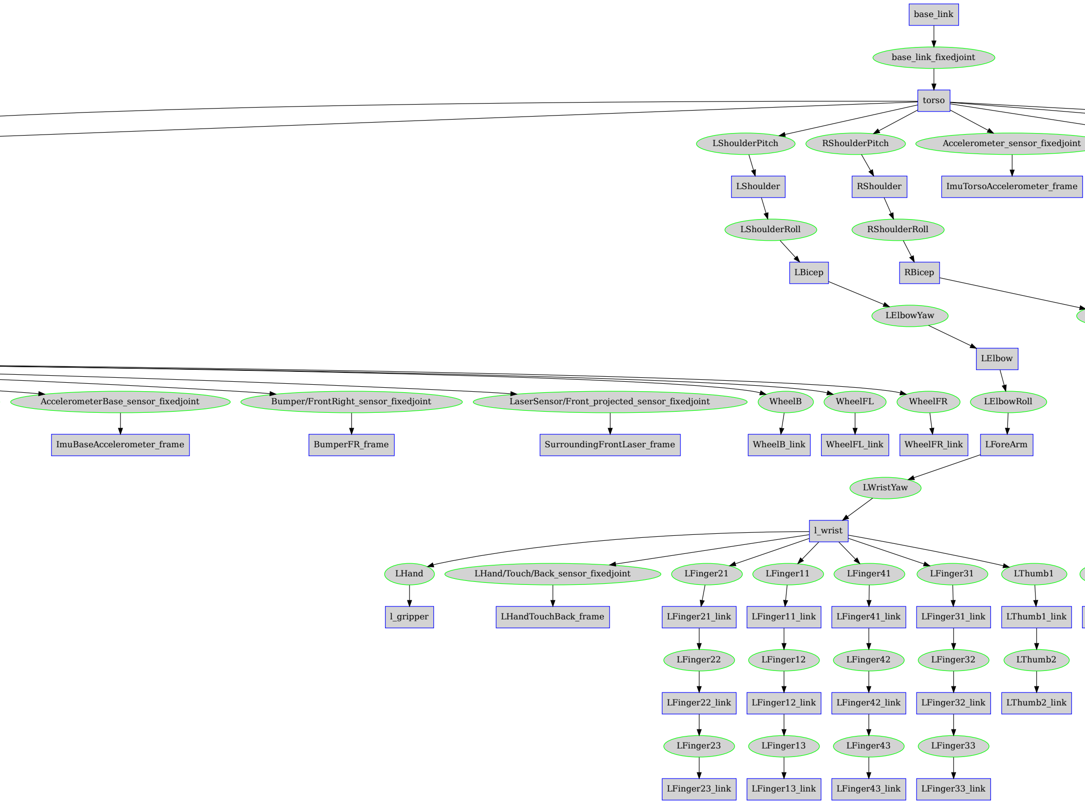
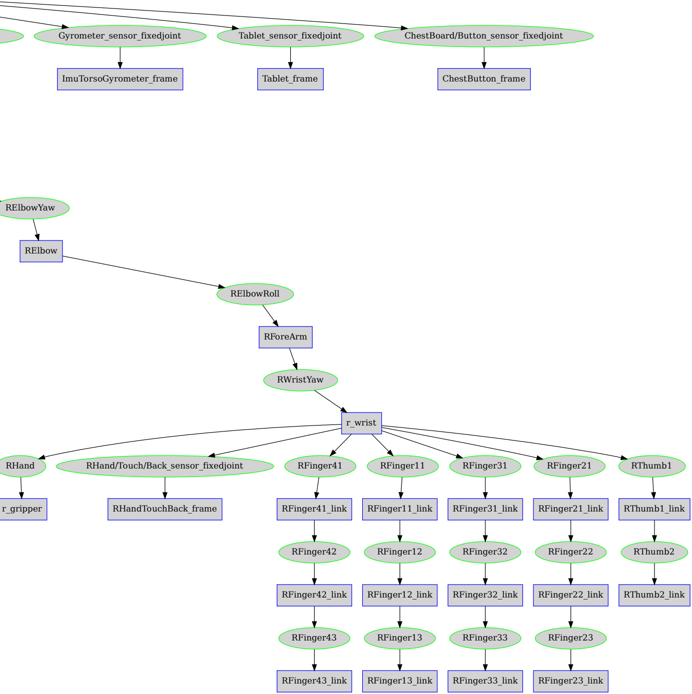

Head
CameraTop_sensor_fixedjoint
SpeakerLeft_sensor_fixedjoint
CameraDepth_sensor_fixedjoint
Head/Touch/Front_sensor_fixedjoint
CameraBottom_sen
CameraTop_frame
LSpeaker_frame
CameraDepth_frame
HeadTouchFront_frame
CameraBottom_frame
CameraTop_optical_frame_fixedjoint
CameraDepth_optical_frame_fixedjoint
CameraBottom_optical_frame_fixedjoint
CameraTop_optical_frame
CameraDepth_optical_frame
CameraBottom_optical_frame


sor_fixedjoint
Head/Touch/Rear_sensor_fixedjoint
SpeakerRight_sensor_fixedjoint
Head/Touch/Middle_sensor_fixedjoint
HeadTouchRear_frame
RSpeaker_frame
HeadTouchMiddle_frame
base_footprint_joint
Sonar/Back_sensor_fixedjoint
LaserSensor/VerticalLeft_sensor_fixedjoint
LaserSensor/Front_sensor_fixedjoint
Bumper/Back_sensor_fixedjoint
base_footprint
SonarBack_frame
VerticalLeftLaser_frame
SurroundingFrontLaser_device_frame
BumperB_frame


HeadPitch
LaserSensor/Left_projected_sensor_fixedjoint
LaserSensor/Shovel_sensor_fixedjoint
LaserSensor/Right_sensor_fixedjoint
GyrometerBase_sensor_fixedjoint
SurroundingLeftLaser_frame
ShovelLaser_frame
SurroundingRightLaser_device_frame
ImuBaseGyrometer_frame


HeadYaw
HipRoll
Neck
Hip
HipPitch
Pelvis
KneePitch
Tibia
LaserSensor/Left_sensor_fixedjoint
LaserSensor/Right_projected_sensor_fixedjoint
LaserSensor/VerticalRight_sensor_fixedjoint
Sonar/Front_sensor_fixedjoint
Bumper/FrontLeft_sensor_fixedjoint
SurroundingLeftLaser_device_frame
SurroundingRightLaser_frame
VerticalRightLaser_frame
SonarFront_frame
BumperFL_frame


base_link
base_link_fixedjoint
torso
LShoulderPitch
RShoulderPitch
Accelerometer_sensor_fixedjoint
LShoulder
RShoulder
ImuTorsoAccelerometer_frame
LShoulderRoll
RShoulderRoll
LBicep
RBicep
LElbowYaw
LElbow
AccelerometerBase_sensor_fixedjoint
Bumper/FrontRight_sensor_fixedjoint
LaserSensor/Front_projected_sensor_fixedjoint
WheelB
WheelFL
WheelFR
LElbowRoll
ImuBaseAccelerometer_frame
BumperFR_frame
SurroundingFrontLaser_frame
WheelB_link
WheelFL_link
WheelFR_link
LForeArm
LWristYaw
l_wrist
LHand
LHand/Touch/Back_sensor_fixedjoint
LFinger21
LFinger11
LFinger41
LFinger31
LThumb1
l_gripper
LHandTouchBack_frame
LFinger21_link
LFinger11_link
LFinger41_link
LFinger31_link
LThumb1_link
LFinger22
LFinger12
LFinger42
LFinger32
LThumb2
LFinger22_link
LFinger12_link
LFinger42_link
LFinger32_link
LThumb2_link
LFinger23
LFinger13
LFinger43
LFinger33
LFinger23_link
LFinger13_link
LFinger43_link
LFinger33_link


Gyrometer_sensor_fixedjoint
Tablet_sensor_fixedjoint
ChestBoard/Button_sensor_fixedjoint
ImuTorsoGyrometer_frame
Tablet_frame
ChestButton_frame
RElbowYaw
RElbow
RElbowRoll
RForeArm
RWristYaw
r_wrist
RHand
RHand/Touch/Back_sensor_fixedjoint
RFinger41
RFinger11
RFinger31
RFinger21
RThumb1
r_gripper
RHandTouchBack_frame
RFinger41_link
RFinger11_link
RFinger31_link
RFinger21_link
RThumb1_link
RFinger42
RFinger12
RFinger32
RFinger22
RThumb2
RFinger42_link
RFinger12_link
RFinger32_link
RFinger22_link
RThumb2_link
RFinger43
RFinger13
RFinger33
RFinger23
RFinger43_link
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RFinger33_link
RFinger23_link