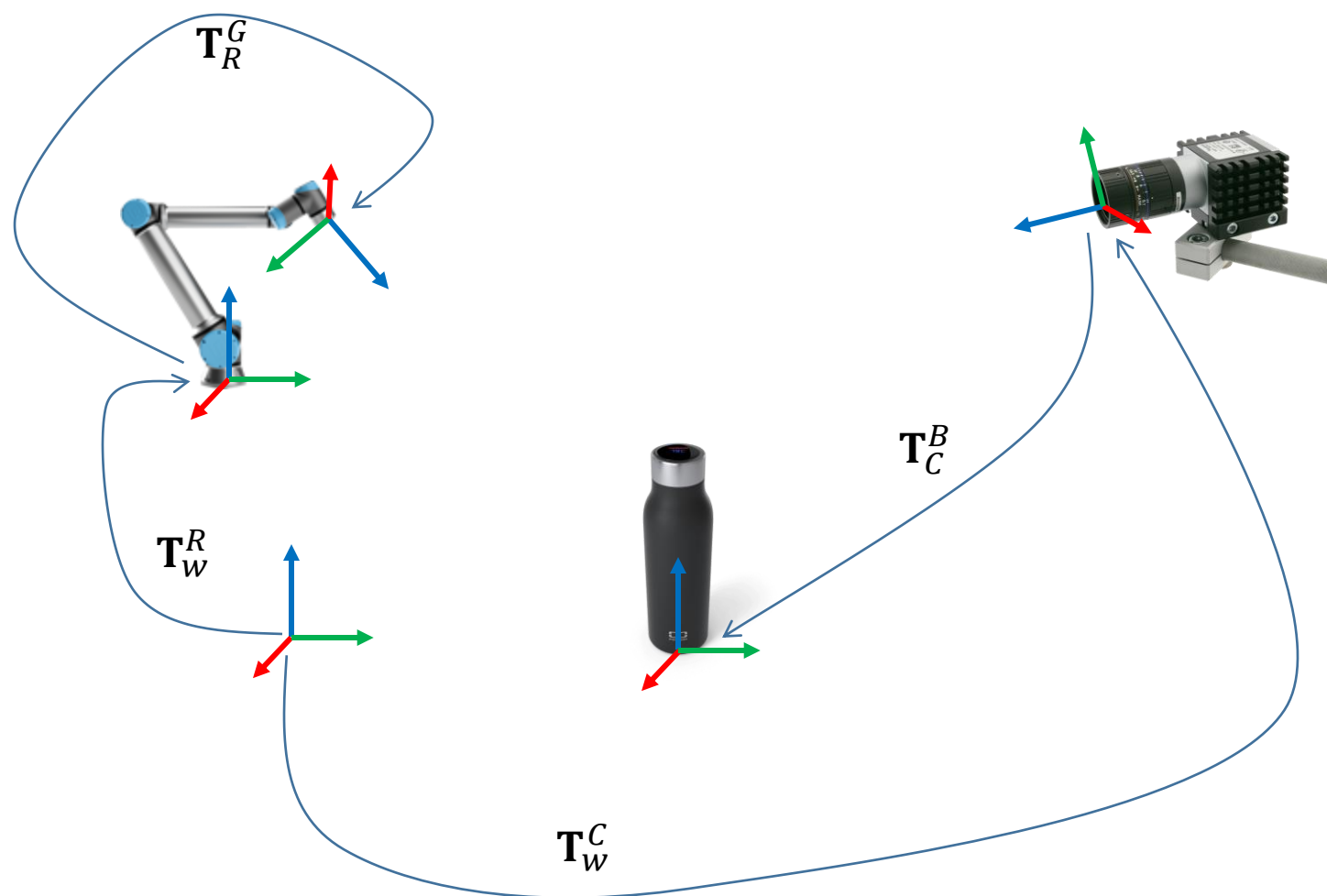


TF

FE ROS

Timotej Gašpar

Relacije med koordinatnimi sistemi



TF – Transformation library

- Sledenje relacijam med koordinatnimi sistemi
- /tf - informacije o spreminjajočih se relacijah (npr. robot)
 - Periodično objavljanje
- /tf_static – informacije o statičnih relacijah (npr. Podstavek na mizi)
 - Se objavi enkrat
- TF knjižnica ponuja API za objavljanje in branje podatkov

<http://wiki.ros.org/tf>

Periodično ali statično?

```
if __name__ == '__main__':  
    rospy.init_node('ros_node')  
  
    tf_broad = tf2_ros.TransformBroadcaster()  
  
    frame_1 = TransformStamped()  
    frame_1.child_frame_id = "frame_1"  
    frame_1.header.frame_id = "world"  
    frame_1.transform.rotation.w = 1  
    frame_1.transform.translation.z = 1  
  
    while not rospy.is_shutdown():  
        tf_broad.sendTransform([frame_1])  
        rospy.sleep(1)
```

```
if __name__ == '__main__':  
    rospy.init_node('ros_node')  
  
    tf_broad = tf2_ros.StaticTransformBroadcaster()  
  
    frame_1 = TransformStamped()  
    frame_1.child_frame_id = "frame_1"  
    frame_1.header.frame_id = "world"  
    frame_1.transform.rotation.w = 1  
    frame_1.transform.translation.z = 1  
  
    tf_broad.sendTransform([frame_1])  
  
    rospy.spin()
```

TransformStamped

```
std_msgs/Header header
  uint32 seq
  time stamp
  string frame_id
string child_frame_id
geometry_msgs/Transform transform
  geometry_msgs/Vector3 translation
    float64 x
    float64 y
    float64 z
  geometry_msgs/Quaternion rotation
    float64 x
    float64 y
    float64 z
    float64 w
```