ScribaLaser

Accurate sensor data is crucial for robot navigation, guidance, and control. Sensing accuracy depends, among other things, on precisely localizing each sensor installed on a robot, so that data collected at the sensor coordinate frame can be transformed to the robot's reference coordinate frame. ScribaLaser is a laser measurement tool utilized to precisely localize laser sensors mounted on a vehicle, either manned or unmanned.

In theory, one can localize a sensor mounted on a robotic system or unmanned vehicle by painstakingly measuring all the distances and angles between the robot and the sensor coordinate frames, and computing the appropriate homogeneous transformation matrix. In practice, of course, this is very difficult except for the simplest systems. Another way of localizing a sensor with respect to the robot's reference frame is to localize both with respect to a third, absolute frame, and then find their relative pose using a cascaded homogeneous transformation. This is exactly the problem that the ScribaLaser solves.

For more information contact Dr. Omead Amidi at omead@skeyes.us.

The ScribaLaser, a tool for precisely calibrating sensors on a vehicle.

1660 McElree Rd.
Washington, PA 15301

Tel.: (412) 260-2625
skeyes@skeyes.us