

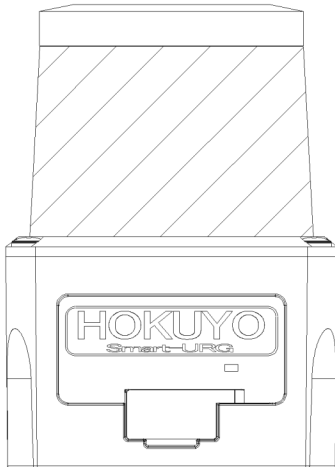
Hokuyo Laser Scanner UST Series Lens Cleaning Instruction

1. Prepare these items

1. Compressed air duster (for daily maintenance) Any general purpose dusters sold at stores can be used.
2. Microfiber cloth We recommend BEMCOT™ M-3 II manufactured by [Asahi Kasei Fibers Corp.](#) (We recommend using two pieces of cloth. One for wet wipes and another for dry wipes)
3. Mild detergent (Used for tough stain.)
4. Daily maintenance Before beginning daily operation of the sensor, use the compressed air duster to remove the dust and dirt from the shaded area.

2. Daily maintenance

Before beginning daily operation of the sensor, use the compressed air duster to remove the dust and dirt from the shaded area.



3. Routine maintenance

1. Dampen the wet wiping cloth with water and squeeze hard to get excess water out until no water droplets drip. If only one piece of cloth is used, leave another corner dry for dry wipes. Use neutral detergent diluted with water for stubborn dirt and oil stain.

2. Use the compressed air duster to remove overall dust as described in the daily maintenance. The lens may be scratched if it is wiped with abrasive particles or dust on the surface.
3. After removing the dust by compressed air, use the prepared moist cloth to wipe the lens **horizontally**.



4. Remove any dirt on the bottom of the lens as well.



5. Use the dry corner of the cloth or another dry cloth to wipe vertically thoroughly.



6. Check to make sure that there are no **uneven marks** caused by wet wiping. Then the cleaning process is completed.

Notes

- 4-1. If the UST is installed in a dark or shaded location and does not get direct lighting, it is hard to see the dirt on the lens. Please use an LED flashlight to check the condition of the lens.
- 4-2. The lens is made of polycarbonate. Consequently, the alkaline detergent or solvents (alcohol, etc.) should not be used.
- 4-3. Rubbing the dry lens surface with dry cloth alone can cause static electricity and the dust might stick to the lens easily.
- 4-4. Be careful and avoid scratching lens. The scratches on lens may be detected as objects.
- 4-5. Please disconnect the UST from the system during lens cleaning process.