



UV DISINFECTION ROBOT (UDR)

System has been tested for efficacy in
PAEC General Hospital, Islamabad

EFFECTIVE DISINFECTION

Eliminate viruses and bacteria, ensuring
thorough and efficient disinfection

SAFETY ASSURANCE

Reduces human exposure to
harmful pathogens

VERSATILE APPLICATION INDUSTRY

Ideal for hospitals, offices, airports,
hotels and public spaces

ELEVATING HYGIENE STANDARDS

Setting new benchmarks in hygiene
protocols, providing peace of mind

MARKET PROJECTION

Expected to reach \$ 5.57 billion by 2027



SALIENT FEATURES

UVC germicidal technology

Equipped with a Pan-Tilt-Zoom camera

Passive Infrared Sensors for human detection

Robot Operating System (ROS) based framework

Teleoperation for operation in real-time

Vision and Alarm System

Autonomous Navigation

SPECIFICATIONS

Continuous operation for 3 hours

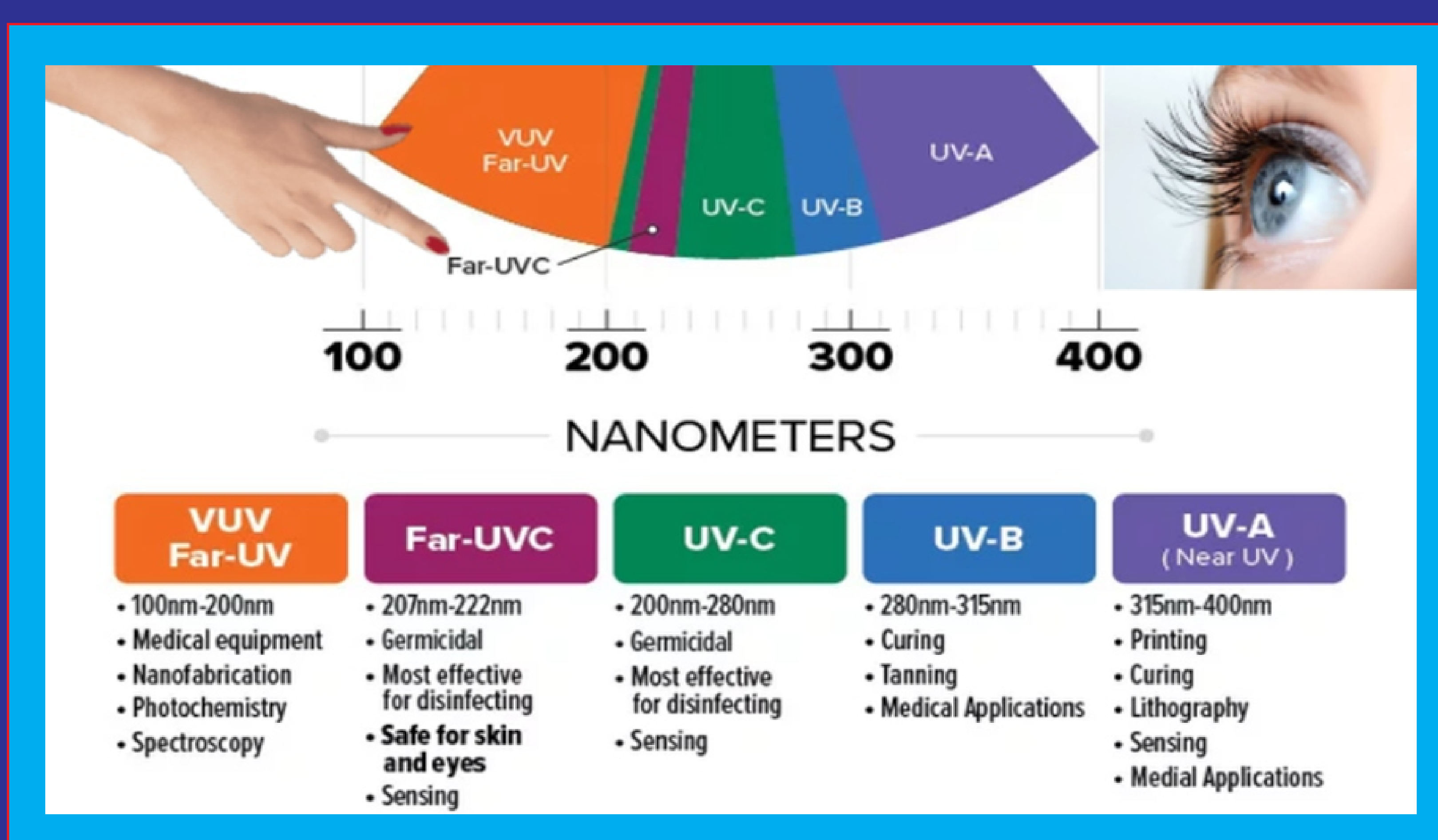
Lamps turn off upon human detection

Weight~180 Kg

Dimensions 1020 x 550 x 1830 (mm)

360° Surface disinfection

Light Spectrum





ARTICULATED MOBILE MANIPULATOR FOR OMNIDIRECTIONAL MANEUVERS

- ▶ Mecanum Hub Wheels based Mobile robot with articulated arm and Gripper

- ▶ Indigenously developed to cater the situations, where human accessibility and intervention is not possible due to hazardous environments.

- ▶ It can be deployed to handle these situations remotely under human teleoperation



SPECIFICATIONS

Omni directional mobile base

6 DOF Robotic Arm

Two finger gripper

Payload up to 2 kg

H16 Remote Controller

Vision system

Up to 2 hours of Operation time

APPLICATIONS AND USES

Bomb Disposal

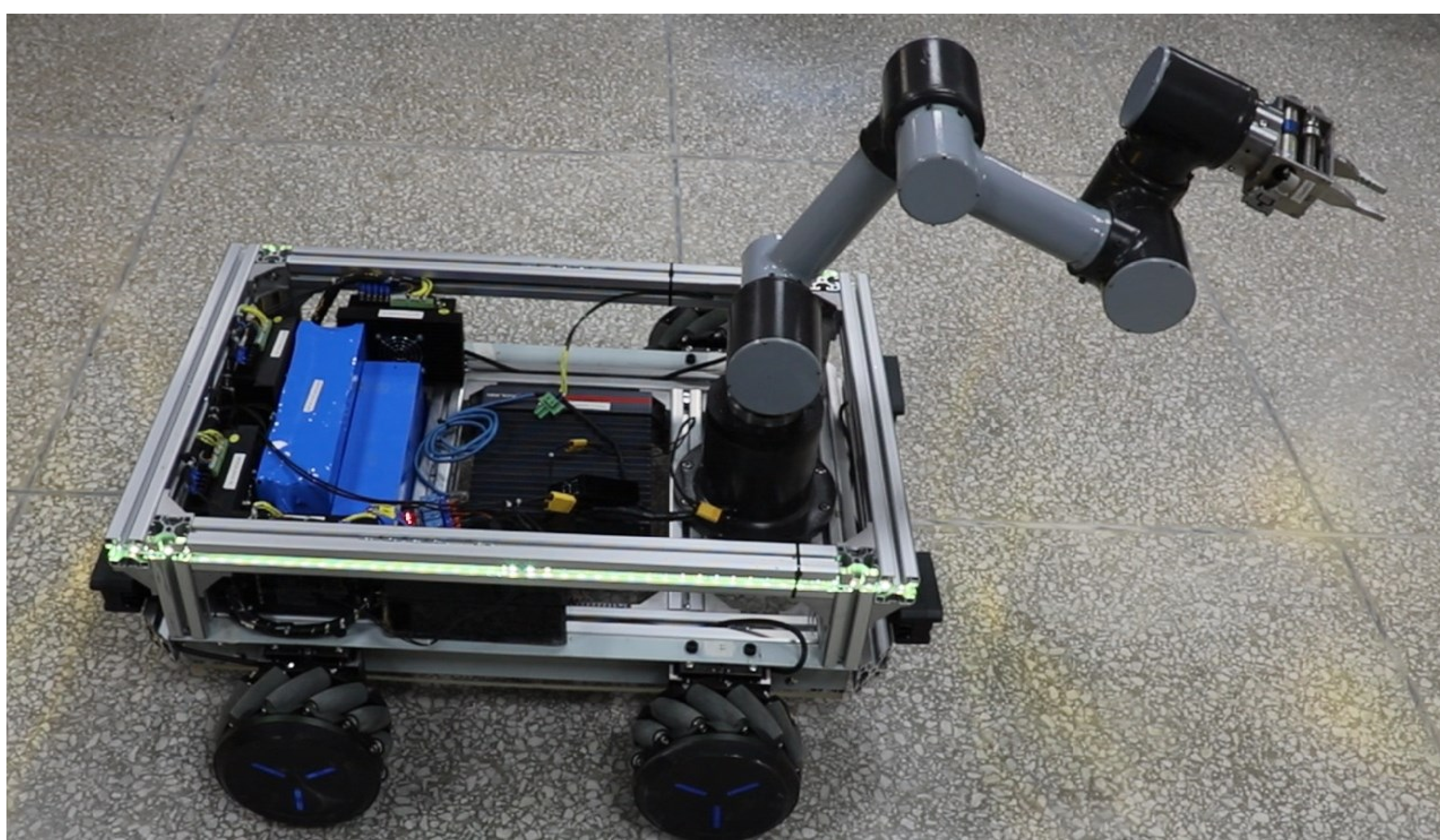
Pick & Place of Objects

Remote Handling

Visual Inspection

Assembling/Disassembling

Decommissioning Activities

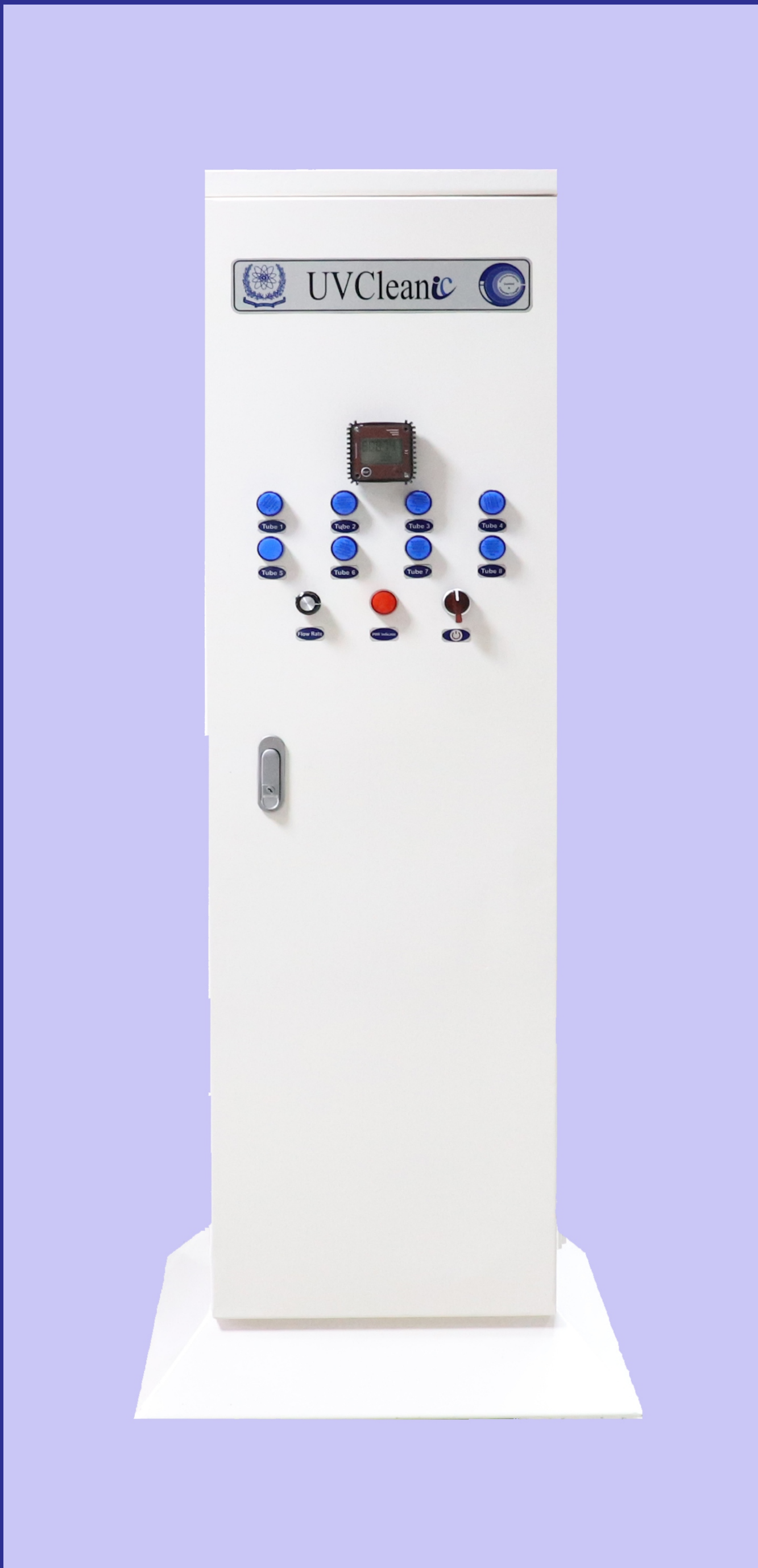




UV CLEANIC

► UV Technology for Water purification for safe Dialysis

► System has already been deployed in Dialysis unit of PGHI (16 hrs / day, 6 days / week)



SPECIFICATIONS

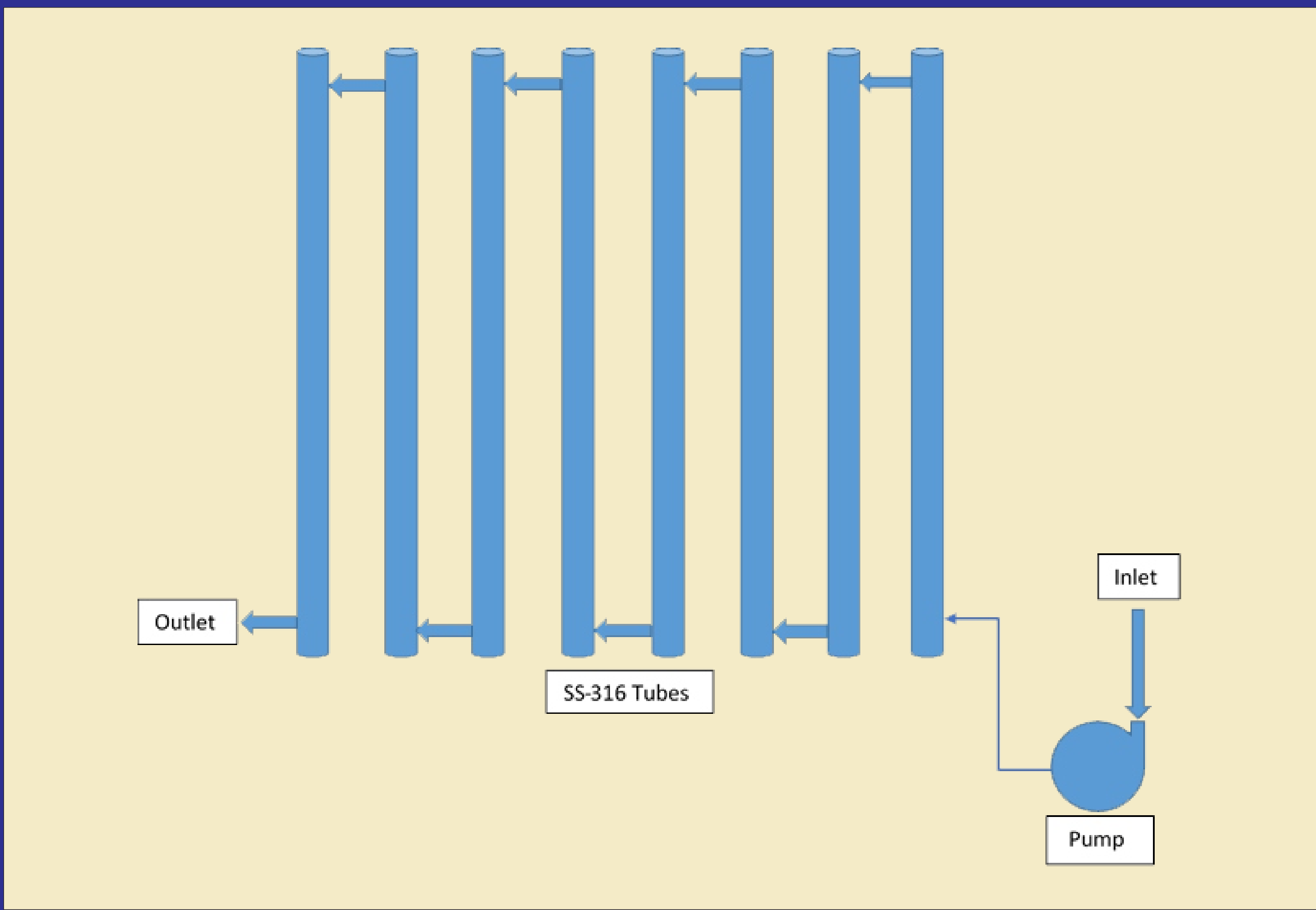
UV Technology to kill Bacteria

8 Stage System

Variable Flow Rate upto 20 L/min

Purification level at inlet : 71 CFU / 100 ml

Purification level at outlet: 11 CFU / 100 ml



Pre UV Sample Reports

PAEC General Hospital, Islamabad

Department of Microbiology

Patient Name :	DIALYSIS UNIT	Order # :	04/25-10571
Specimen :	WATER	Lab # :	04/25-10571
Ref. By :		Dept. Code :	P-11/08-00189
Sample Date :	25/04/2025 10:56:19 AM	Reporting Date :	03/05/2025 12:16:29 PM

Quality Control Culture

Test Name	Result	Reference Range
Media Used for Culture	Blood & MacConkey	CLED
Temperature of incubation	37 c	37 c
Duration of Incubation	48 Hours	48 Hours , 24 Hours
Conditions of Incubation	Aerobic	Aerobic

Sample Site & Growth Obtained

Name of Company: PAEC General Hospital

Address : PAEC General Hospital, H-11/4 Islamabad

Water Source : WRO water

Type of Specimen : Pre UV

Location : Nephrology (Dialysis unit)

Date Sample Received: 25/04/2025

Bacteriological Examination:

Total Plate Count :71 CFU/100ml

Total Coliforms : CFU/100ml

Fecal Coliforms : 0 CFU/100ml

Pseudomonas : 71 CFU/100ml

Note: The presence of Pseudomonas in water indicates that there is a possibility of formation of biofilms in water pipes which may lead to colonization of coliforms

Post UV Sample Reports

PAEC General Hospital, Islamabad

Department of Microbiology

Quality Control Culture

Test Name	Result	Reference Range
Media Used for Culture	Blood & MacConkey	CLED
Temperature of incubation	37 c	37 c
Duration of Incubation	48 Hours	48 Hours , 24 Hours
Conditions of Incubation	Aerobic	Aerobic

Sample Site & Growth Obtained

Name of Company: PAEC General Hospital

Address : PAEC General Hospital, H-11/4 Islamabad

Water Source : WRO water

Type of Specimen : Post UV

Location : Nephrology (Dialysis unit)

Date Sample Received: 25/04/2025

Bacteriological Examination:

Total Plate Count :11 CFU/100ml

Total Coliforms : CFU/100ml

Fecal Coliforms : 0 CFU/100ml

Pseudomonas : 11 CFU/100ml

Note: The presence of Pseudomonas in water indicates that there is a possibility of formation of biofilms in water pipes which may lead to colonization of coliforms