

School of Physical Education and Sports



Rashtriya Raksha University
(An Institution of National Importance)
Pioneering National Security and Police University of India

EQUIPMENTS: HUMAN PERFORMANCE LABORATORY

S. No.	Name of the Equipment	Function of the Equipment
1	Body composition analyzer	Provides a detailed snapshot about the body
2	Spirometry	Measures lung capacity
3	Back & leg dynamometer	Measures isometric strength (back & leg)
4	Digital hand dynamometer	Measures isometric arms strength
5	Heart rate monitor (polar)	Measures pulse rate
6	Anthropometric kit	Measures size and proportions of the human body

7	Vienna test system	Measures psychological parameters
8	Hematology analyzer	Measures complete blood count
9	Electrolyte analyzer	Measures electrolytes in human body
10	Biochemistry analyzer	Analyses chemical in biological samples
11	Smart hemoglobin monitor	Determine hemoglobin content of the blood
12	Centrifuge 6-tube	Contain liquids during centrifugation
13	Digital water bath	To incubate samples at a constant temperature
14	Sit and reach box	Measures spine & hamstring flexibility
15	Infrared thermometer	Determine surface temperature
16	Mirror drawing	Investigating the acquisition of learned motor skills
17	Memory drum	Used in learning, memory and forgetting experiments
18	Tachistoscope	To test the limits of human visual perception
19	Hand steadiness	Tests the steadiness of your hand
20	Human maze learning	Improve the cognitive skills
21	Division of attention	Sharing one's attention between two modalities for increase in memory and reaction time performance
22	Hp laptop	To run a spirometry test, and for data storage & management
23	Timing gates	Analysis of sprint time performance
24	Chrono jump mat	Detect changes in jump height performance
25	Force transducer	Able to visualize the isometric maximum force in real time
26	Velocity training device	Measures the linear displacement of the exercise
27	Skinfold caliper	To assess subcutaneous fat at various regions of the body
28	Stadiometer	To measures standing height
29	Extendable goniometer	Measures range of motion
30	Digital goniometer	To measures joint angles and movement

31	Lactate analyzer	Measures the level of lactic acid
32	Speed radar gun	Measures the speed of an object
33	Heart rate monitor	Track heart rate, sleep and activity
34	Pulse oximeter	Measures Blood oxygen saturation
35	Sphygmomanometer	Measures blood pressure
36	Plank mat	Measures functional fitness like pushups, plank, squats etc.
37	Atoms	Measures Jump data & agility
38	Balance Board	Measures balance
39	Memory Board	Measures memory, attention, and reaction time, which are crucial for athletic performance.
40	Helios	Experience drills focused on stamina, agility and reflexes and detailed performance analytics. Create, play and train with ever more precision.
Soon to be added at HPL		
1	Force Plates	Measures the ground reaction forces and moments involved in human movements
2	Surface electromyography (sEMG)	Measures the electrical activity produced by muscles during contraction
3	Vo2 Max Gas Analyzer	Measures the volume and gas concentrations & the maximum amount of oxygen that an individual can utilize during intense exercise
4	Bicycle Ergometer	Measures various parameters related to physical performance and cardiovascular function during exercise

