|  |  |
| --- | --- |
| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Robotics

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1S |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 2F |  O |  R |  W |  A |  R |  D |  K |  I |  N |  E |  M |  A |  T |  I |  C |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  M |  | 3O |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  U |  |  F |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  L |  |  F |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4M |  |  | 5R |  |  |  A |  |  L |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 6I |  N |  D |  U |  S |  T |  R |  I |  A |  L |  R |  O |  B |  O |  T |  |  I |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  T |  |  |  B |  |  |  I |  |  N |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  E |  |  |  O |  |  |  O |  |  E |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 7L |  A |  S |  E |  R |  |  |  T |  |  |  N |  |  P |  |  |  |  |
|  |  |  |  |  |  |  | 8B |  |  |  |  | 9C |  |  |  |  |  I |  |  |  |  |  |  |  |  R |  | 10J |  |  |
|  |  |  |  |  |  |  |  A |  |  |  |  |  O |  | 11D |  Y |  N |  A |  M |  I | 12C |  S |  | 13D |  |  O |  |  O |  |  |
|  |  |  |  |  |  |  |  S |  |  |  |  |  N |  |  |  |  |  L |  |  |  O |  |  |  R |  |  G |  |  I |  |  |
|  |  | 14E |  M |  E |  R |  G |  E |  N | 15C |  Y |  S |  T |  O |  P |  |  |  H |  |  |  N |  |  |  O |  |  R |  |  N |  |  |
|  |  |  |  |  |  |  |  |  |  A |  |  |  R |  |  |  |  |  A |  |  |  T |  |  |  P |  |  A |  |  T |  |  |
|  |  |  |  |  |  |  |  |  |  D |  |  |  O |  |  | 16S |  E |  N |  S |  O |  R |  |  |  D |  |  M |  |  S |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  L |  | 17T |  |  |  D |  |  |  O |  |  |  E |  |  M |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  M |  |  O |  |  |  L |  |  |  L |  |  |  L |  |  I |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 18R |  O |  B |  O |  T |  S |  I |  M |  U |  L |  A |  T |  I |  O |  N |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  D |  |  L |  |  |  N |  |  |  E |  |  |  V |  |  G |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  E |  |  |  |  |  G |  | 19F |  R |  A |  M |  E |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  R |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 20E |  X |  P |  A |  N |  D |  A |  B |  I |  L |  I |  T |  Y |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **Across****2.** The procedures use mathematical algorithms along with joint sensors to determine its location of a robot **6.** re-programmable multifunctional manipulator designed to move material, parts, tools, or specialized devices, through variable programmed motions for the performance of a variety of tasks **7.** This is commonly used as a non-contact sensor for robots. Robotic applications include: distance finding, identifying accurate locations, surface mapping, bar code scanning, cutting, welding etc.**11.** The study of motion, the forces that cause the motion, and the forces due to motion. **14.** removes drive power from the robot actuators, and causes all moving parts to stop.**16.** It help the robot to determine the environment of the robot like light heat.**18.** predicting the behavior and the operation of a robotic base the look of it **19.** It can determine a position and orientation of an object in space, as well as the robot's position within its model.**20.** able to add resources to the system, such as memory, larger hard drive. | **Down****1.** The robot predicting the behavior and the operation of a robotic, kinematics emulation, path-planning emulation, and simulation of sensors. See Sensor, Forward Kinematics, and Robot.**3.** devices or computers separate from the robot for later input of programming information to the robot.**4.** industrial robotic arm transfers materials from one place to another.**5.** It moves and use mostly on this I can work will out it**8.** It can work without you can build fine and it not being supporter by something **9.** Follows commands you tell the robot **10.** I help the robot move it arms or move **12.**  An information processing device whose inputs are both the desired and measured position, velocity or other pertinent variables**13.** object to the workplace by gravity. Usually, a chute or container is so placed that, when work on the part is finished, it will fall or drop into a chute or onto a conveyor with little or no transport by the robot**15.** Computer aided design can be say in a short way is **17.** This items we use to build buildings fix robot house. |