**Proposal for Bot run**

**Name of project -**Autonomous maze solving robot using Arduino UNO

**About**

A maze solving robot is designed to move in a maze and escape through it by following its walls. A maze solving robot is quite similar to a line follower. Like a line follower has to follow black strip lines, a maze follower finds a wall and starts following it until it finds an escape route. But unlike a line follower which has just to follow a predetermined route, a maze follower is designed to find an escape route that is not known beforehand. However, both types of robots are designed to be autonomous, they basically perform different tasks.

The maze solving robot designed is built on Arduino UNO and has the maze solving algorithm implemented within the Arduino Sketch **. It can be useful while doing rescue operations**

**Methodology**

Ultrasonic sensors will make the robot

Change direction without colliding with the wall

**Requirements**

1. Arduino uno
2. (3 X)ultrasonic sensors
3. L298 Motor driver
4. (2X)DC motors
5. (2X)9 V battery with battery caps
6. Connecting wires
7. Ball caster
8. Wheels
9. Body(chasis)or(mecanic toy kit)
10. A Bread board
11. Double sided tapes

**Expected completion time required**

2 days approximately.

**Project members**

|  |  |  |
| --- | --- | --- |
| **No.** | **Name** | **Position** |
| **1** | **ARUNODAY KUMAR** | **LEADER** |
| **2** | **KAPIL KUMAR** | **LEADER** |
| **3** | **SHUBHAM SAINI** | **LEADER** |

**Budget**

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | No.of pieces | Amount |
|  | Arduino uno | 1 | 365 |
| 2. | ultrasonic sensors | 3 | 3 X 75 |
| 3 | L298 Motor driver | 1 | 186 |
| 4 | DC motors | 2 | 199 |
| 5 | 9 V battery with battery caps | 2 | 30 x2 |
| 6 | Connecting wires | 1 | 300 |
| 7 | Ball caster | 1 | 30 |
| 8 | Wheels | 1 | 120 |
| 9 | Body(chasis)or(mecanic toy kit) | 1 | 100 |
| 10 | A Bread board | 1 | 95 |
| 11 | Double sided tapes+black tape | 2+1 | 40+10 |

|  |  |
| --- | --- |
| GRAND TOTAL | 1730 |