|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Trial | PWM | Time (s) | Distance from normal (cm) | Deviation direction |  |  |
| 1 | 100 | 5 | 110 | Right |  |  |
| 2 | 100 | 5 | 117 | Right |  |  |
|  |  |  |  |  | Average deviation | 113.5 |
| 1 | 150 | 5 | 190 | Right |  |  |
| 2 | 150 | 5 | 189.5 | Right |  |  |
|  |  |  |  |  | Average deviation | 189.75 |
| 1 | 200 | 5 | 186 | Right |  |  |
| 2 | 200 | 5 | 211 | Right |  |  |
|  |  |  |  |  | Average deviation | 198.5 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| trial no | L | R | deviation notes | deviation |
|  | SLOW SPEED | |  |  |
| 1 | 100 | 100 | high deviation, doesn’t reach, to the right |  |
| 2 | 120 | 90 | deviates to the left | 84 |
| 3 | 120 | 95 | closer to the middle, left | 13 |
| 4 | 120 | 97 | closer to the middle, left | 8 |
| 5 | 120 | 99 | closest to the middle | 4 |
| 6 | 120 | 99 | best one (confirmation) | 3 |
|  | MEDIUM SPEED | |  |  |
| 1 | 150 | 150 | deviates to the right, doesn’t reach the end |  |
| 2 | 160 | 140 | deviates to the right | 35 |
| 3 | 163 | 137 | cant get better than this | 9 |
| 4 | 164 | 137 |  | -10 |
|  | HIGH SPEED | |  |  |
| 1 | 200 | 200 | doesn’t reach, high to the right |  |
| 2 | 220 | 180 | to the right, better | 80 |
| 3 | 230 | 170 | to the left | -17.33 |
| 4 | 225 | 175 | to the left, better than before | -7.5 |
| 5 | 225 | 174 | left | -8 |
| 6 | 226 | 174 | left | -5.5 |
| 7 | 225 | 176 | to the right | 5 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| speed | time (s) | speed (m/s) |  |  |
| slow | 5.97 | 0.3350084 |  |  |
|  | 5.91 | 0.3384095 | average | 0.336709 |
| medium | 4.4 | 0.4545455 |  |  |
|  | 4.2 | 0.4761905 | average | 0.465368 |
| fast | 3.56 | 0.5617978 |  |  |
|  | 3.5 | 0.5714286 | average | 0.566613 |
|  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| speed | distance between start and finish (m) | deviation (cm) | total distance travelled | time (s) | speed (m/s) |  |  |
| slow | 2 | 3 | 2.000224987 | 5.97 | 0.3350461 |  |  |
|  | 2 | 3 | 2.000224987 | 5.91 | 0.3384475 | average | 0.336747 |
| medium | 2 | 9 | 2.002023976 | 4.4 | 0.4550054 |  |  |
|  | 2 | 9 | 2.002023976 | 4.2 | 0.4766724 | average | 0.465839 |
| fast | 2 | 5 | 2.000624902 | 3.56 | 0.5619733 |  |  |
|  | 2 | 5 | 2.000624902 | 3.5 | 0.5716071 | average | 0.56679 |