|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Time (s) | Vi (m/s) | Vf (m/s) | Vavg (m/s) | Height (m) | Air Resistance (N) |
| Trial 1 | 0.0025 | 5.6 | 0 | 2.8 | 0.75 |  |
| Trial 2 | 0.0025 | 5.6 | 0 | 2.8 | 0.7 |  |
| Trial 3 | 0.0022 | 6.4 | 0 | 3.2 | 0.77 |  |
| Trial 4 | 0.0026 | 5.4 | 0 | 2.7 | 0.67 |  |
| Average |  | 5.7 | 0 | 2.875 | 0.7225 | 0.00036 |

All trials are launched from the third notch

Marble Mass: 5.52 g

Marble Mass Kg = 0.00552 Kg

Marble Diameter: 1.4 cm

Marble Diameter M = 0.014

Marble Area = 0.00015 m2

Vi = L/t

F = 1/2pv2CA

P = 1.225 Kg/m3

V = (Vi + Vf )/ 2

C (drag) = 0.47

A = pi r2

KE – Work = PE

1/2mv2 – Fh = mgh

½ (0.00552)( -