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Thrust Modelling

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**Thrust Modelling Data:**

|  |  |  |  |
| --- | --- | --- | --- |
| % | PWM | Thrust (gs) | Current (amps) |
| 10 | 26 | 14 | 0.48 |
| 20 | 51 | 31 | 0.88 |
| 30 | 77 | 40 | 1.15 |
| 40 | 102 | 47 | 1.36 |
| 50 | 127 | 49 | 1.54 |
| 60 | 153 | 52 | 1.71 |
| 70 | 179 | 53 | 1.82 |
| 80 | 204 | 54 | 1.85 |
| 90 | 230 | 55 | 1.83 |
| 100 | 255 | 56 | 1.80 |

This data was recorded using the motor thrust stand in the flight lab at a frequency of 5000 Hz. The graphs of our data is shown below. It is interesting to note that I was expecting a more linear trend but this may be due to how the board is assembled.