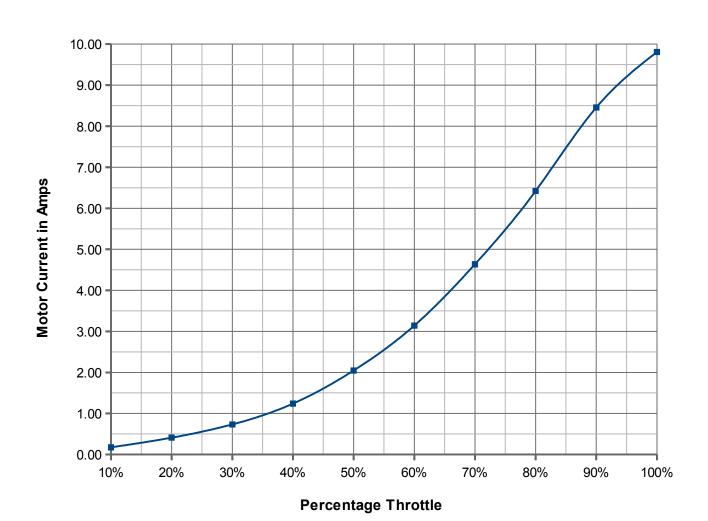
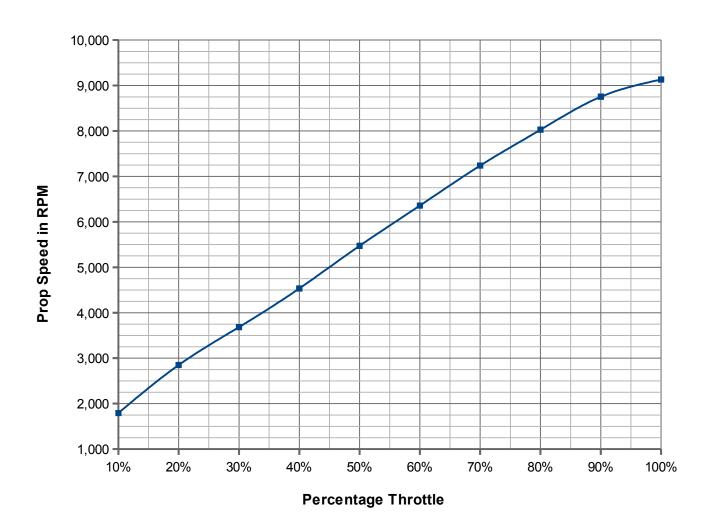
| Data Collected at 11.1 volts with APC 8x4.5-MR Prop |       |        |       |         |          |            |  |
|---|-------|--------|-------|---------|----------|------------|--|
| Throttle  | Motor | Input  | Prop  | Thrust  | Thrust   | Efficiency |  |
| Setting   | Amps  | Watts  | RPM   | (Grams) | (Ounces) | Grams/W    |  |
| 10%   | 0.17  | 1.93   | 1,793 | 24.0    | 0.85     | 12.43      |  |
| 20%   | 0.41  | 4.54   | 2,850 | 53.7    | 1.89     | 11.83      |  |
| 30%   | 0.73  | 8.13   | 3,683 | 89.9    | 3.17     | 11.06      |  |
| 40%   | 1.24  | 13.75  | 4,534 | 135.0   | 4.76     | 9.82       |  |
| 50%   | 2.05  | 22.71  | 5,472 | 201.9   | 7.12     | 8.89       |  |
| 60%   | 3.14  | 34.84  | 6,358 | 271.6   | 9.57     | 7.79       |  |
| 70%   | 4.64  | 51.45  | 7,238 | 363.6   | 12.81    | 7.07       |  |
| 80%   | 6.42  | 71.28  | 8,027 | 459.2   | 16.18    | 6.44       |  |
| 90%   | 8.46  | 93.87  | 8,752 | 550.7   | 19.41    | 5.87       |  |
| 100%  | 9.81  | 108.88 | 9,131 | 605.8   | 21.35    | 5.56       |  |

### **Motor Current vs Throttle Position**



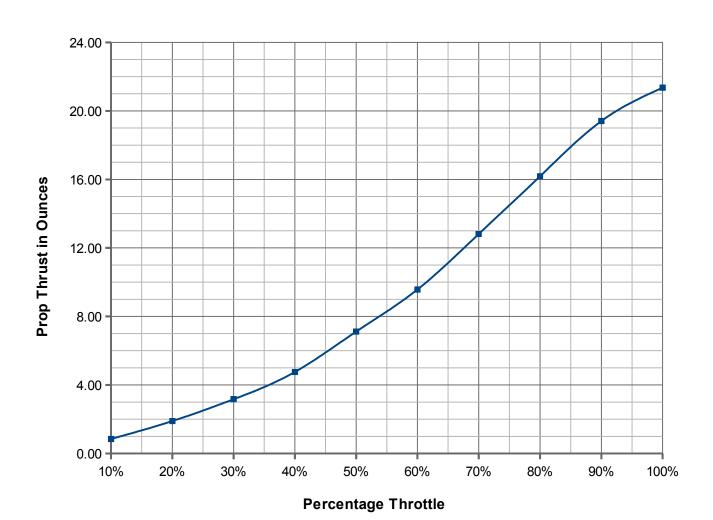
| Data Collected at 11.1 volts with APC 8x4.5-MR Prop |       |        |       |         |          |            |  |
|---|-------|--------|-------|---------|----------|------------|--|
| Throttle  | Motor | Input  | Prop  | Thrust  | Thrust   | Efficiency |  |
| Setting   | Amps  | Watts  | RPM   | (Grams) | (Ounces) | Grams/W    |  |
| 10%   | 0.17  | 1.93   | 1,793 | 24.0    | 0.85     | 12.43      |  |
| 20%   | 0.41  | 4.54   | 2,850 | 53.7    | 1.89     | 11.83      |  |
| 30%   | 0.73  | 8.13   | 3,683 | 89.9    | 3.17     | 11.06      |  |
| 40%   | 1.24  | 13.75  | 4,534 | 135.0   | 4.76     | 9.82       |  |
| 50%   | 2.05  | 22.71  | 5,472 | 201.9   | 7.12     | 8.89       |  |
| 60%   | 3.14  | 34.84  | 6,358 | 271.6   | 9.57     | 7.79       |  |
| 70%   | 4.64  | 51.45  | 7,238 | 363.6   | 12.81    | 7.07       |  |
| 80%   | 6.42  | 71.28  | 8,027 | 459.2   | 16.18    | 6.44       |  |
| 90%   | 8.46  | 93.87  | 8,752 | 550.7   | 19.41    | 5.87       |  |
| 100%  | 9.81  | 108.88 | 9,131 | 605.8   | 21.35    | 5.56       |  |

# **Propeller RPM vs Throttle Position**



| Data Collected at 11.1 volts with APC 8x4.5-MR Prop |       |        |       |         |          |            |  |
|---|-------|--------|-------|---------|----------|------------|--|
| Throttle  | Motor | Input  | Prop  | Thrust  | Thrust   | Efficiency |  |
| Setting   | Amps  | Watts  | RPM   | (Grams) | (Ounces) | Grams/W    |  |
| 10%   | 0.17  | 1.93   | 1,793 | 24.0    | 0.85     | 12.43      |  |
| 20%   | 0.41  | 4.54   | 2,850 | 53.7    | 1.89     | 11.83      |  |
| 30%   | 0.73  | 8.13   | 3,683 | 89.9    | 3.17     | 11.06      |  |
| 40%   | 1.24  | 13.75  | 4,534 | 135.0   | 4.76     | 9.82       |  |
| 50%   | 2.05  | 22.71  | 5,472 | 201.9   | 7.12     | 8.89       |  |
| 60%   | 3.14  | 34.84  | 6,358 | 271.6   | 9.57     | 7.79       |  |
| 70%   | 4.64  | 51.45  | 7,238 | 363.6   | 12.81    | 7.07       |  |
| 80%   | 6.42  | 71.28  | 8,027 | 459.2   | 16.18    | 6.44       |  |
| 90%   | 8.46  | 93.87  | 8,752 | 550.7   | 19.41    | 5.87       |  |
| 100%  | 9.81  | 108.88 | 9,131 | 605.8   | 21.35    | 5.56       |  |

### **Propeller Thrust vs Throttle Position**



| Data Collected at 11.1 volts with APC 8x4.5-MR Prop |       |        |       |         |          |            |  |
|---|-------|--------|-------|---------|----------|------------|--|
| Throttle  | Motor | Input  | Prop  | Thrust  | Thrust   | Efficiency |  |
| Setting   | Amps  | Watts  | RPM   | (Grams) | (Ounces) | Grams/W    |  |
| 10%   | 0.17  | 1.93   | 1,793 | 24.0    | 0.85     | 12.43      |  |
| 20%   | 0.41  | 4.54   | 2,850 | 53.7    | 1.89     | 11.83      |  |
| 30%   | 0.73  | 8.13   | 3,683 | 89.9    | 3.17     | 11.06      |  |
| 40%   | 1.24  | 13.75  | 4,534 | 135.0   | 4.76     | 9.82       |  |
| 50%   | 2.05  | 22.71  | 5,472 | 201.9   | 7.12     | 8.89       |  |
| 60%   | 3.14  | 34.84  | 6,358 | 271.6   | 9.57     | 7.79       |  |
| 70%   | 4.64  | 51.45  | 7,238 | 363.6   | 12.81    | 7.07       |  |
| 80%   | 6.42  | 71.28  | 8,027 | 459.2   | 16.18    | 6.44       |  |
| 90%   | 8.46  | 93.87  | 8,752 | 550.7   | 19.41    | 5.87       |  |
| 100%  | 9.81  | 108.88 | 9,131 | 605.8   | 21.35    | 5.56       |  |

### **Propeller Efficiency vs Throttle Position**

