***8. Supplementary material***

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | ***s*** | ***t*** | ***a*** | ***d*** | ***s\*t*** | ***s\*a*** | ***s\*d*** | ***t\*a*** | ***t\*d*** | ***a\*d*** | ***s2*** | ***t2*** | ***a2*** | ***d2*** |
| **Movement Smoothness** | **Coef.** |  |  |  | -.0157407 |  |  |  |  |  |  |  |  |  | 5.889·10-5 |
| **t-stat** |  |  |  | -3.89 |  |  |  |  |  |  |  |  |  | 3.5709 |
| **p-val** |  |  |  | .0001 |  |  |  |  |  |  |  |  |  | .0004 |
| **Range of Motion** | **Coef.** |  | -1.36276 |  |  |  | -.0644511 |  |  |  |  | .0044345 | .0137637 | .306655 |  |
| **t-stat** |  | -3.6943 |  |  |  | -3.5695 |  |  |  |  | 3.3859 | 3.6097 | 3.8731 |  |
| **p-val** |  | .0003 |  |  |  | .0004 |  |  |  |  | .0008 | .0003 | .0001 |  |
| **Distance Moved (mice)** | **Coef.** |  |  |  |  |  |  |  |  |  | .0652483 |  |  |  |  |
| **t-stat** |  |  |  |  |  |  |  |  |  | 2.5934 |  |  |  |  |
| **p-val** |  |  |  |  |  |  |  |  |  | .0098 |  |  |  |  |
| **Arm coordination** | **Coef.** |  |  |  |  | -7.9·10-5 | 9.54·10-5 |  |  |  |  |  |  |  | -1.68753 |
| **t-stat** |  |  |  |  | -2.3843 | 2.8991 |  |  |  |  |  |  |  | -2.4903 |
| **p-val** |  |  |  |  | .0176 | .004 |  |  |  |  |  |  |  | .0132 |

**Table 3: Multiple regression analysis results. Parameter weight and statistics are reported for the four kinematic measures. Letters *s*, *t*, *a* and *d* refer to the training variables flying speed, turning speed, acceptance radius and distance respectively. Cells without data indicate parameters that do not have a significant contribution, and therefore are excluded from that particular model.**