# Methods

| | |
|---|---|
| Agent Movement Onset Time Mean | $\mu_A$ |
| Agent Movement Onset Time Uncertainty | $\sigma_A$ |
| Reaction Time Mean | $\mu_{RT}$ |
| Reaction Time Uncertainty | $\sigma_{RT}$ |
| Movement Time Mean | $\mu_{MT}$ |
| Movement Time Uncertainty | $\sigma_{MT}$ |
| Neuromechanical Delay Mean | $\mu_{NMD}$ |
| Neuromechanical Delay Uncertainty | $\sigma_{NMD}$ |
| Stopping Time Uncertainty | $\sigma_\tau$ |
| Switch Time Mean | $\mu_{switch}$ |
| Switch Time Uncertainty | $\sigma_{switch}$ |

**Table 1.** Inputs to the model

| | |
|---|---|
| Reaction Time Delay | $\mathcal{N}(\mu_{RT}, \sigma_{RT})$ |
| Movement Time Delay | $\mathcal{N}(\mu_{MT}, \sigma_{MT})$ |
| Neuromechanical Delay | $\mathcal{N}(\mu_{NMD}, \sigma_{NMD})$ |
| Stopping Time Uncertainty | $\sigma_\tau$ |
| Switch Time Delay | $\mathcal{N}(\mu_{switch}, \sigma_{switch})$ |
| Agent Movement Onset Time | $\mathcal{N}(\mu_A, \sigma_A)$ |

**Table 2.** Inputs to the model

$$f(t) = \frac{1}{\sigma\sqrt{2\pi}}e^{-\frac{1}{2}(\frac{t-\mu}{\sigma})^2} \tag{1}$$

$$F(t) = P(T \leq t) = \int_{-\infty}^{t} f(t)dt \tag{2}$$

$$t \in [0, 1500] \tag{3}$$

$$T \sim \mathcal{N}(\mu, \sigma) \tag{4}$$

$$P(React|\tau) = P(\tau > \mu_A; \sigma_{tau}, \sigma_A) \tag{5}$$

$$P(Guess|\tau) = P(\tau < \mu_A; \sigma_{tau}, \sigma_A) \tag{6}$$

$$\mu_X = \sum_{i=-\infty}^{\infty} x_i f(x_i; \mu_X, \sigma_X) \tag{7}$$

$$\mathbb{1}_{a_i, t_i \in S} = \begin{cases} 1, & \text{if } a_i, t_i \in S \\ 0, & \text{if } a_i, t_i \notin S \end{cases} \tag{8}$$

$$\mu_{RMO} = \mu_{A_{cutoff}} + \mu_{RT} \tag{9}$$

$$\sigma_{RMO} = \sqrt{\sigma_{A_{cutoff}}^2 + \sigma_{RT}^2} \tag{10}$$

$$\mu_{GMO} = tau + \mu_{NMD} + \mu_{switch} \tag{11}$$

$$\sigma_{GMO} = \sqrt{\sigma_\tau^2 + \sigma_{NMD}^2 + \sigma_{switch}^2} \tag{12}$$

$$R_{win} = 1 \tag{13}$$

$$R_{indecision} = 0 \tag{14}$$

$$R_{incorrect} = 0 \tag{15}$$