Availability calculation

$$U(100, 110)$$

$$U(19, 20)$$

$$U(1, 2)$$

$$U(19, 11)$$
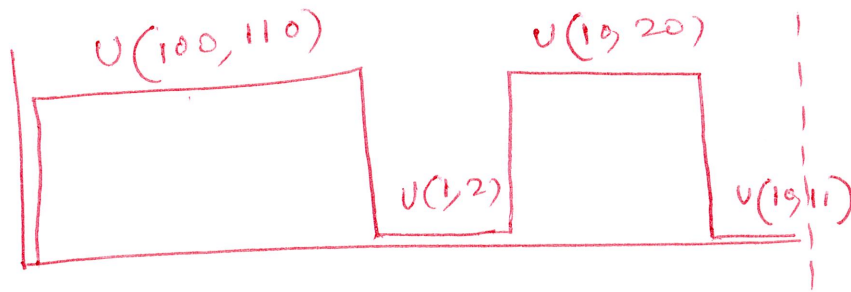
90% $\dfrac{105}{105 + 1.5} = \cancel{88.73}$ 98.59

10% $\dfrac{15}{15 + 10.5} = 58.8\cancel{8}2$

$$0.9 * 98.59 + 0.1 * 58.82$$

$$= \boxed{94.61\%}$$ Availability

Reliability

$$R(t) = Pr(\text{No failure in time interval } (0, t))$$

$$\in (0, 1)$$

Safety

$$S(t) = Pr(\text{No safety critical failure in } (0, t))$$

Failure

Safety critical failure

$$R(t) \leq S(t)$$

$$R(100) \qquad S(100)$$

Aerial Robots

Name (printed)	Team	Constraints on meeting from 3:30 – 4:30