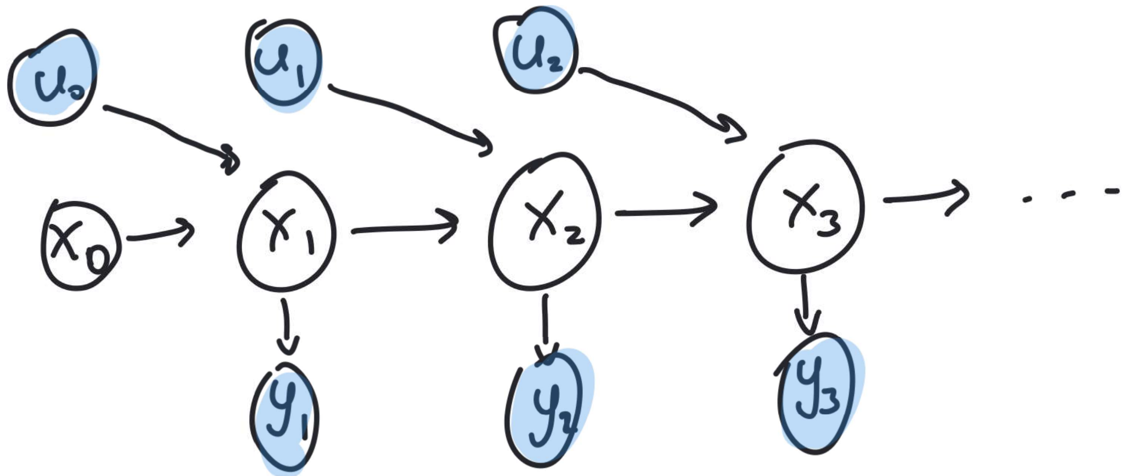
Markov model with observations and controls



Initial Prob. : $p(x_0) = \dots$

Transition Prob. : $p(x_{n+1} \mid x_n, u_n) = \dots$

Emission Prob. : $p(y_n \mid x_n) = \dots$

$$p(x_{0:n}, y_{1:n} \mid u_{0:n-1}) = p(x_0) \prod_{t=1}^{n} p(x_t \mid x_{t-1}, u_{t-1}) \, p(y_t \mid x_t)$$

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