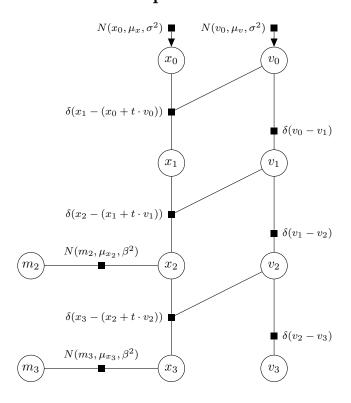
## 1 Factor Graph for X-Coordinates



## 2 New Factor for Y-Coordinates

$$\underbrace{\left(v_{i}\right)}_{\delta\left(v_{i+1}-\left(v_{i}+\frac{1}{2}at^{2}\right)\right)}_{\left(v_{i+1}\right)}$$