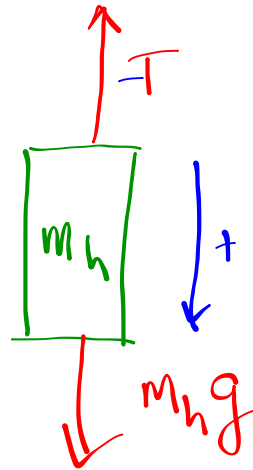


$$F_{\text{net}} = m_c a =$$

$$m_c a = T + -F_{\text{fr}}$$

$$F = ma$$



$$F_{\text{net}} = m_h a =$$

$$m_h a = m_h g + -T$$

$$T = F_{\text{fr}} + m_c a$$

$$T = m_h g + -m_h a$$

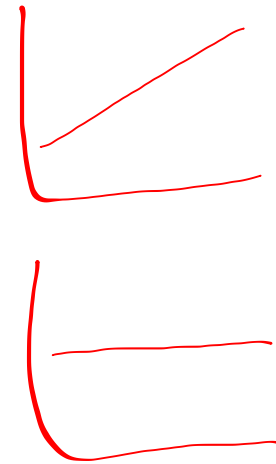
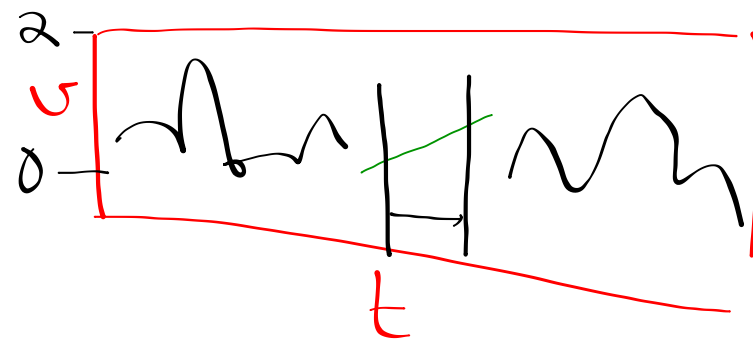
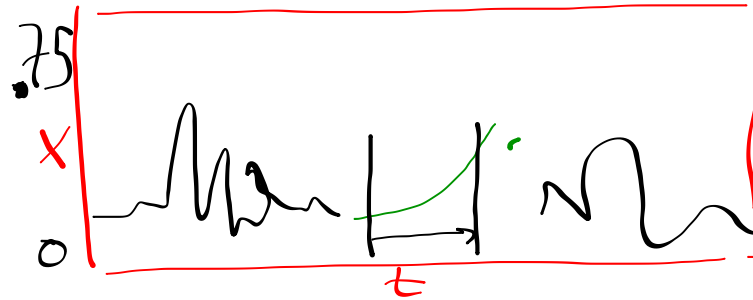
$$F_{\text{fr}} + m_c a = m_h g + -m_h a$$

$$F_{\text{fr}} = m_h g + -m_h a + -m_c a$$

(a) use sensor to calculate a & solve

(b) balance the masses closely - target $a=0$

t	x	v
0	x	x
	x	x
	x	x



Once you've found the force of friction:

- Pick a (new) total mass for your hanging mass
- Predict the resulting acceleration
- Test your prediction
 - use two different ways to calculate a