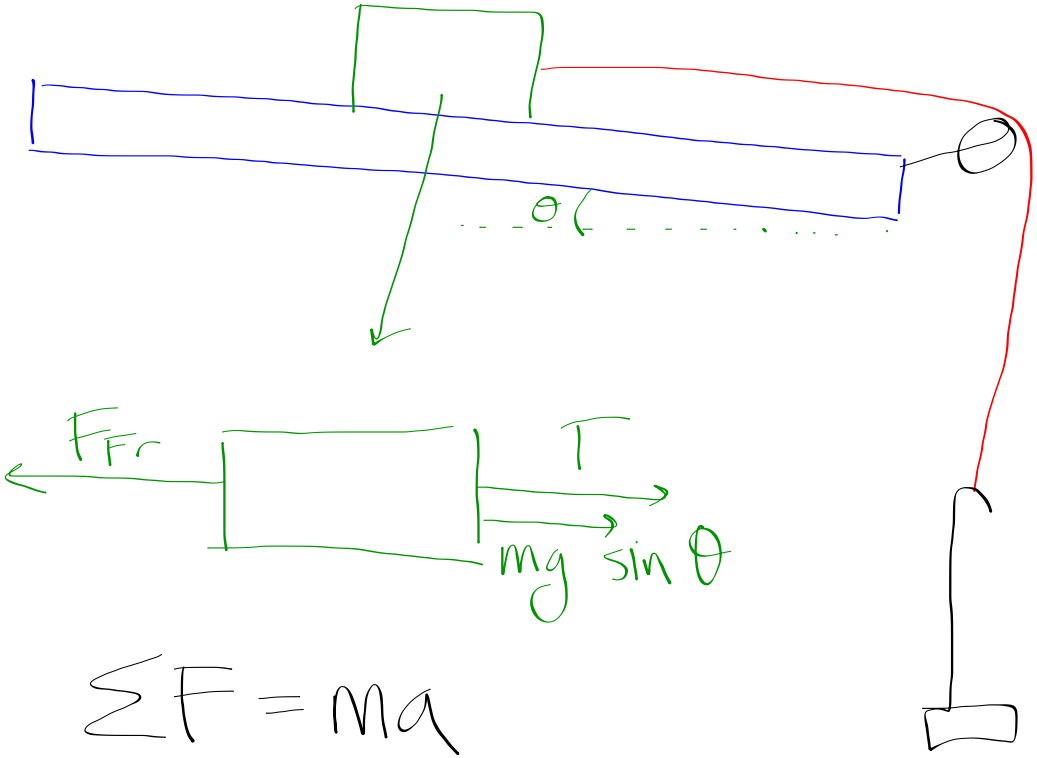
Your tasks:

- You have to find F_{Fr} on the cart (for any mass of the cart)
- How quickly will the cart accelerate with any given hanging mass?



$$\Sigma F = ma$$

$$-F_{Fr} + T = ma$$

F_{Fr} = small #

a = small #

m_c = relatively large

m_h = moderately large

Data from motion sensor:

Time = highly accurate (Δt will be right on)

Position = fairly accurate (Δx will be ok - look at all the data first!)

exaggerated

Velocity = ok (v_0 is probably wrong)

Acceleration = trash

t	x	v	a
⋮	⋮	⋮	
		0.1	
		1.7	
		0.2	
0.35	0.23	averages?	
0.40	0.25	good data?	
0.45	0.31	⋮	
0.50	0.29		

average

2 bars + 50g hanging mass

~~0.373~~

0.267

0.273

4 bars + 50g hanging mass

0.183

0.165