Mechanics_project02

Initially I will assume that:

- M1 is at position (0, y2),
- M2 is at position (-x2, y2),
- M3 is at position (R, y3).

When F is positive the bodies will move to the negative direction of X axis, and when F is negative they will move to the positive direction.

The constraints are the same as in the frictionless case.

- a1 - a2 - a3y = 0,
- a1 - a3x = 0.

When a body moves, the friction force is directed to the opposite of the movement.

- f1 = myu1 * N1 = - myu1 * (M1+M2+M3)g
- f2 = myu2 * N2 = -myu2 * M2g
- f3 = myu3 * N3 = -myu3 * F1, where F1 is the force applyed by M1 to M3 during horizontal motion.

Question: Does friction force attain it's maximum possible value?

Interesting cases.

- Investigate the cases when M2 will move left or right.
- Investigate the cases when M3 will move up or down.