MuJoCo: 2D Hopper (1)

Using template_pendulum.zip to get started

1. From tiny.cc/mujoco download template_pendulum.zip and unzip in myproject
2. Rename folder template_pendulum to hopper
3. Make these three changes
    1. main.c — line 28, change template_pendulum/ to hopper/
    2. makefile — change ROOT = template_writeData to ROOT = hopper also UNCOMMENT (del #) appropriate to your OS
    3. run_unix / run_win.bat change <template_pendulum> to <hopper>
4. In the *shell, navigate to hoppper and type ./run_unix (unix) or run_win (windows); *shell = terminal for mac/linux / x64 for win

MuJoCo: 2D Hopper (2)

Model (xml)

World

Translation: x and z

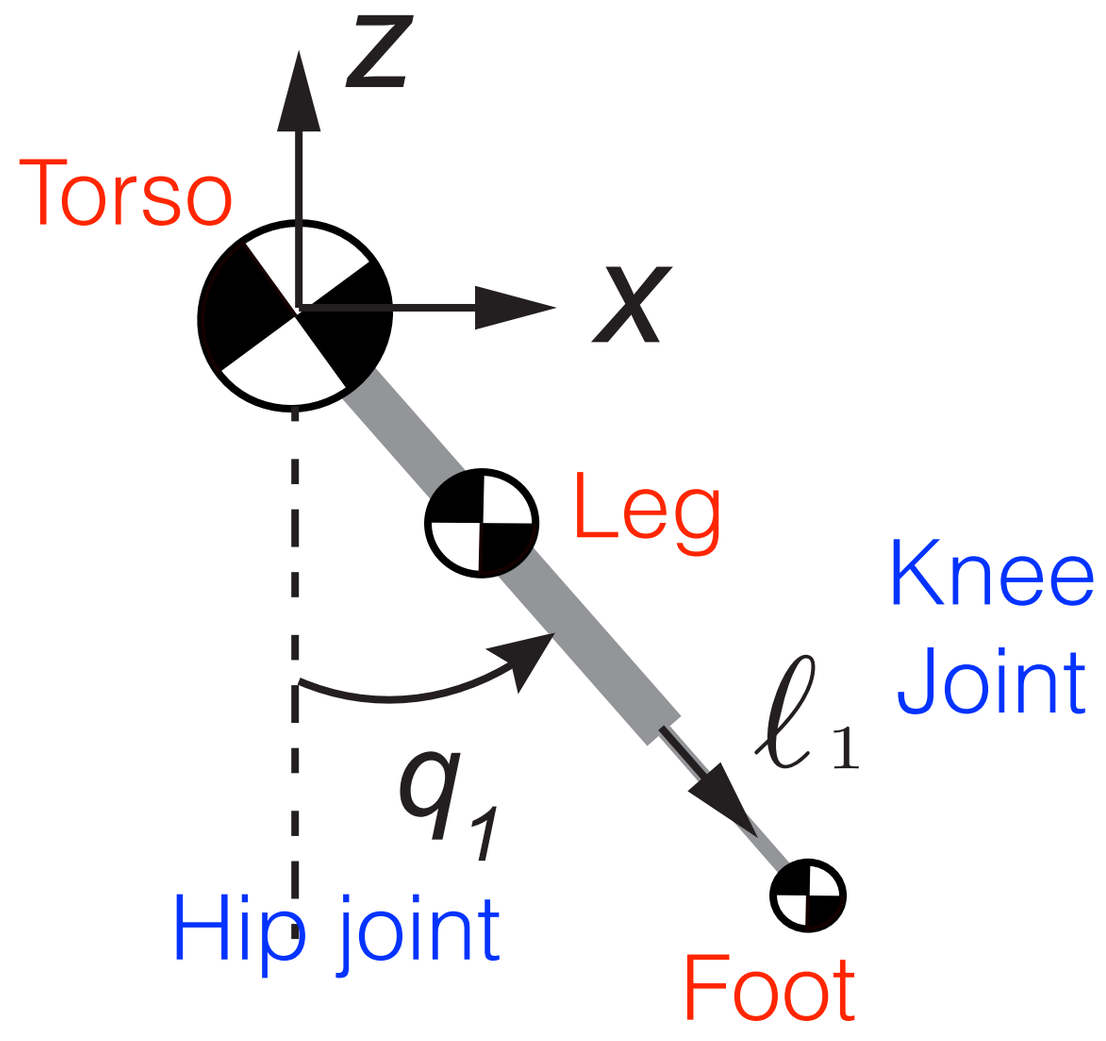
Torso

Hip Joint: q1

Leg

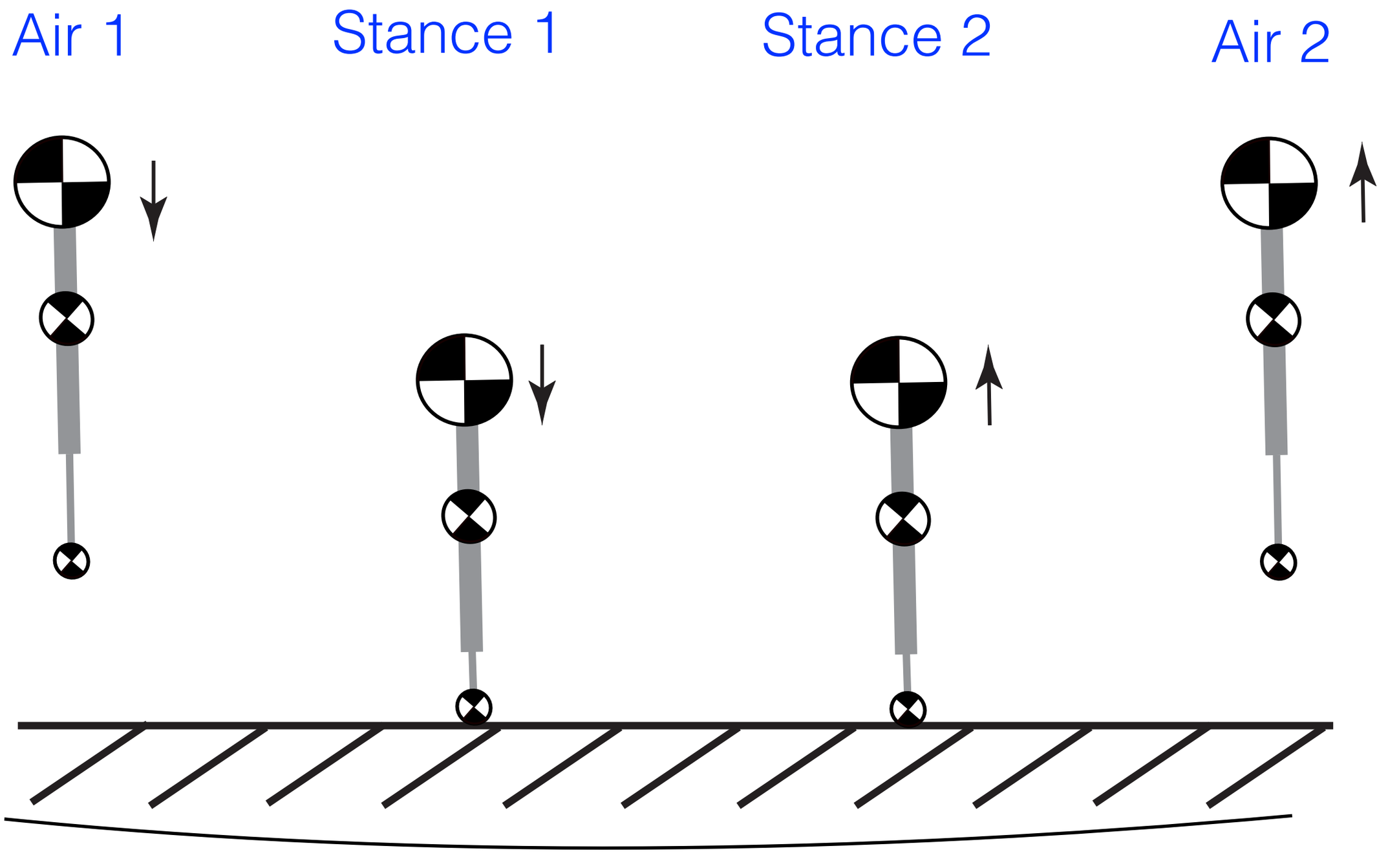
Knee Joint: l1

Foot



MuJoCo: 2D Hopper (3)

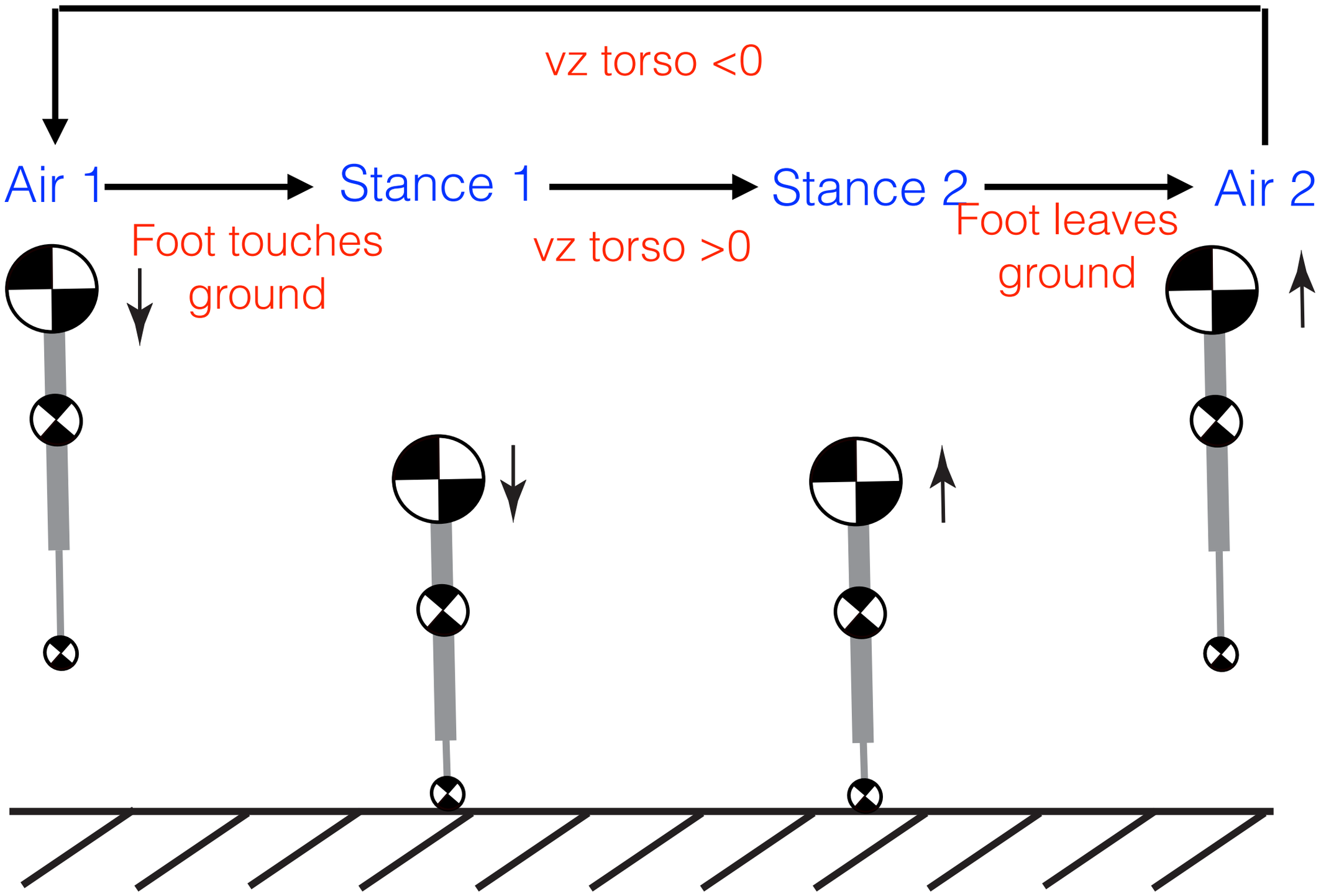
Finite State Machine: States



One Step

MuJoCo: 2D Hopper (4)

Finite State Machine: Transitions

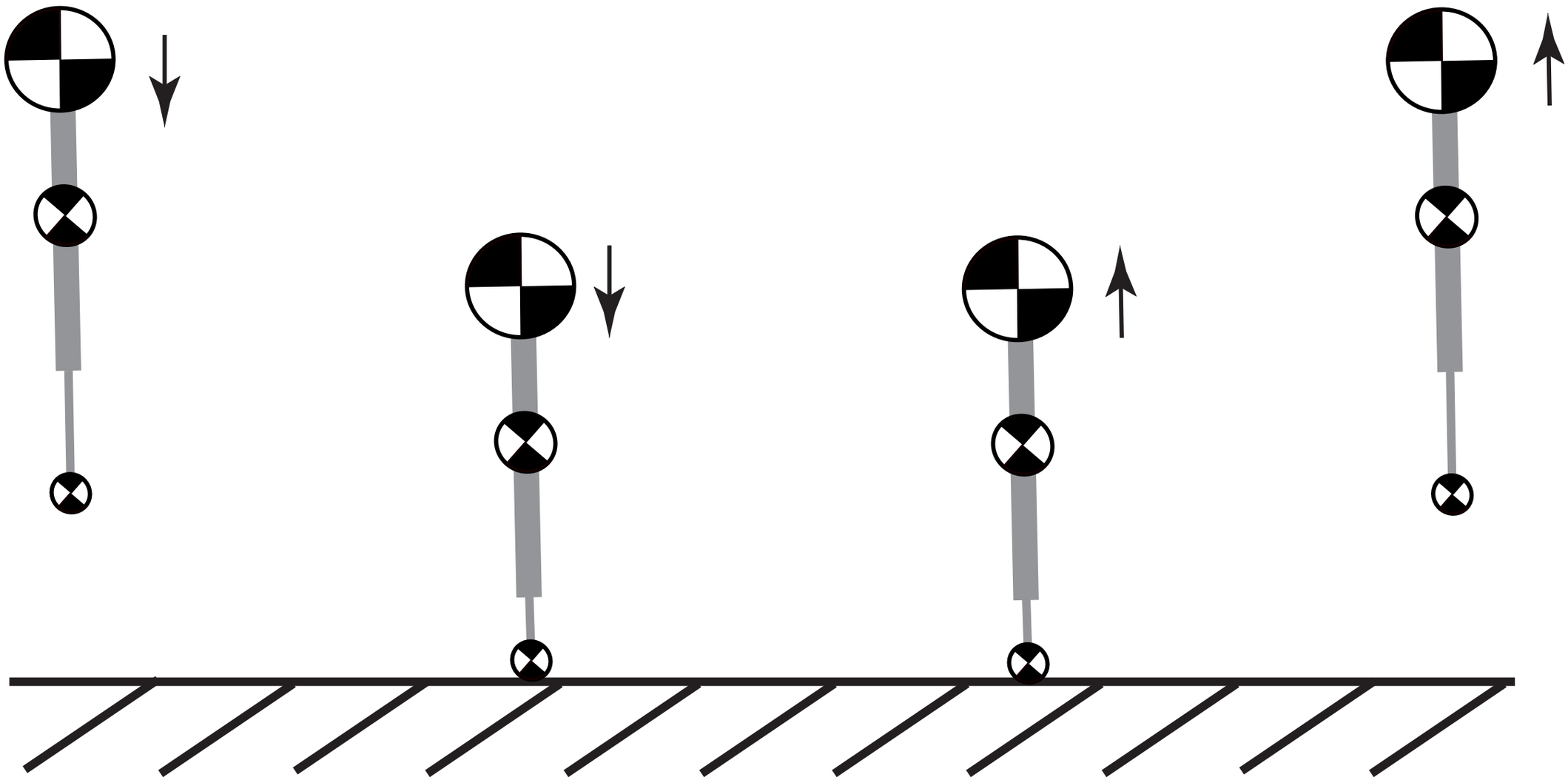


MuJoCo: 2D Hopper (5)

Finite State Machine: Actions (Knee joint/Height control)

All servos on reference pos/vel of 0

pos/vel servo (position control)	pos servo (spring)	pos servo (spring)	pos/vel servo (position control)
Air 1	Stance 1	Stance 2	Air 2



MuJoCo: 2D Hopper (6)

Finite State Machine: Actions (Hip joint/Velocity control)

All servos on fixed gains for pos/vel servo

Air 1	Stance 1	Stance 2	Air 2
pos/vel ref = 0	pos/vel ref = 0	pos=-0.2 vel = 0	pos/vel = 0