Intuition of **Inference—no training:**

在没有进一步的训练的情况下,可以将 CALM 低级控制器和高级运动控制器结合起来解决任务。这个阶段只涉及推断(inference)

What already provided by the author:

- location: 对于位置任务, 代理应该到达并保持在目标位置内, 这个目标位置用围绕着 旗杆的圆圈表示
- strike: 打击 需要代理到达目标并将其击倒。

For Strike:

```
python calm/run.py --test \
    --task HumanoidStrikeFSM \
    --num_envs 16 \
    --cfg_env calm/data/cfg/humanoid_sword_shield_strike_fsm.yaml \
    --cfg_train calm/data/cfg/train/rlg/hrl_humanoid_fsm.yaml \
    --motion_file
    calm/data/motions/reallusion_sword_shield/dataset_reallusion_sword_shield_fsm_movements.yaml \
    --llc_checkpoint calm/data/models/calm_llc_reallusion_sword_shield.pth \
    --checkpoint
    calm/data/models/calm_hlc_precision_trained_reallusion_sword_shield.pth \
    --headless
```

For Location:

```
python calm/run.py --test \
--task HumanoidLocationFSM \
--num envs 64 \setminus
--cfg env calm/data/cfg/humanoid sword shield location fsm.yaml \
--cfg train calm/data/cfg/train/rlg/hrl humanoid fsm.yaml \
--motion file
calm/data/motions/reallusion sword shield/dataset reallusion sword shi
eld fsm movements.yaml \
--llc checkpoint calm/data/models/calm llc reallusion sword shield.pth
--checkpoint
calm/data/models/calm hlc precision trained reallusion sword shield.pt
-- llc checkpoint
      低级控制器的检查点
      a pre-trained CALM low-level controller is located at
      calm/data/models/calm llc reallusion sword shield.pth
--checkpoint
      高级精细训练控制器的检查点
      a pre-trained high-level precision-trained controller is located at
```

 $\verb| calm/data/models/calm_hlc_precision_trained_reallusion_sword_shield.pth| \\$

Output:

1. HumanoidStrikeFSM:

Requested behavior contains: RunForward, Atk_Kick (Attack + Kick), Idel_Ready(随时做出行动或反应的空闲状态)

strike任务就是跑到一个障碍物的范围内, 攻击和踢, 摆出防御状态 strike视频

2. HumanoidLocationFSM:

Requested behavior contains: RunForward, Taunt_Roar (嘲笑、挑衅对手或表达自信)

location任务是跑到一个点附近, 嘲笑对手 location 视频

All the motions can be referred to: <u>dataset_reallusion_sword_shield_fsm_movements.yaml</u>