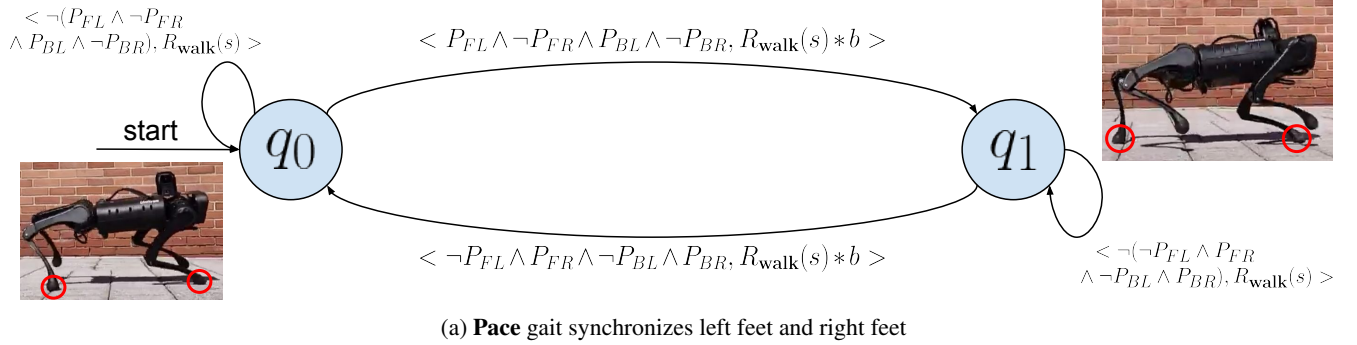
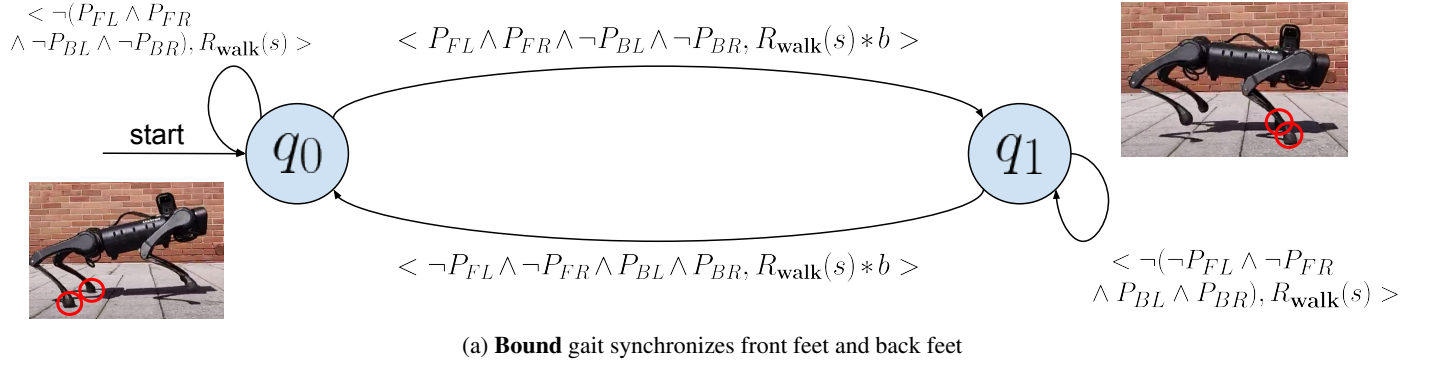


## Supplementary Material

Primary Keywords: (2) Learning; (3) Robotics

### Reward Machines for Other Gaits

In this section, we present the reward machines for the five gaits not already shown: **Bound**, **Pace**, **Walk**, **Three-One**, and **Half-Bound**.



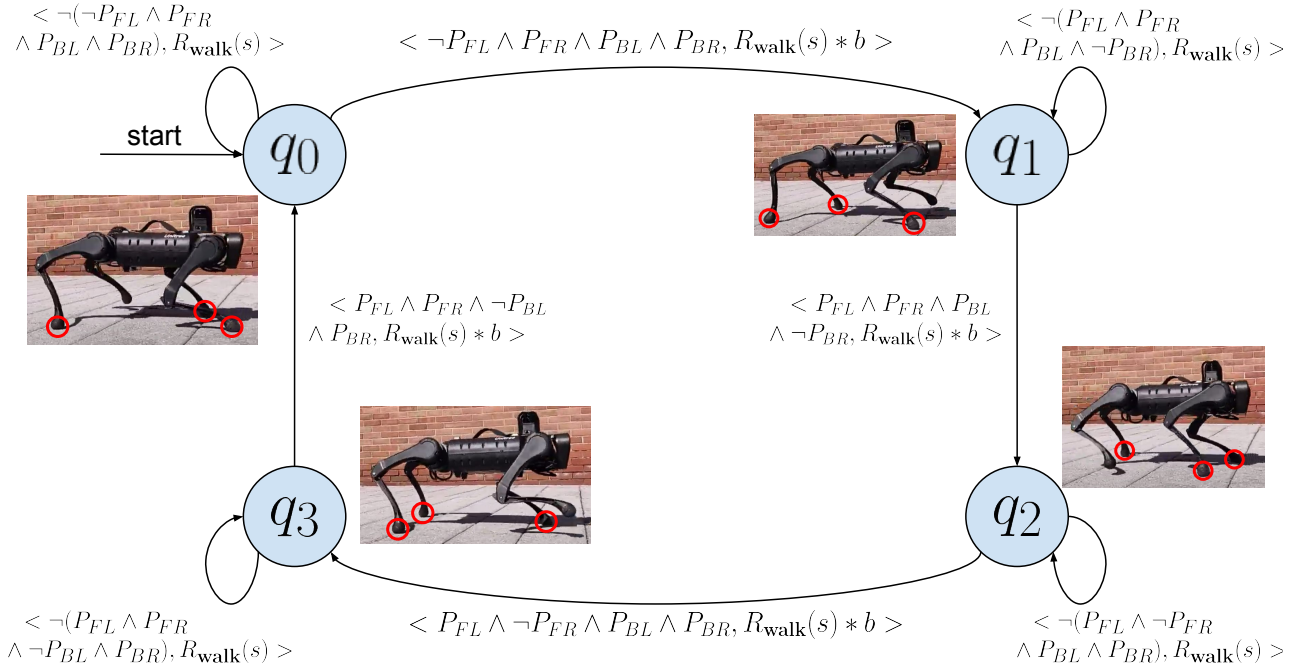


Figure 3: Walk gait lifts one foot at a time

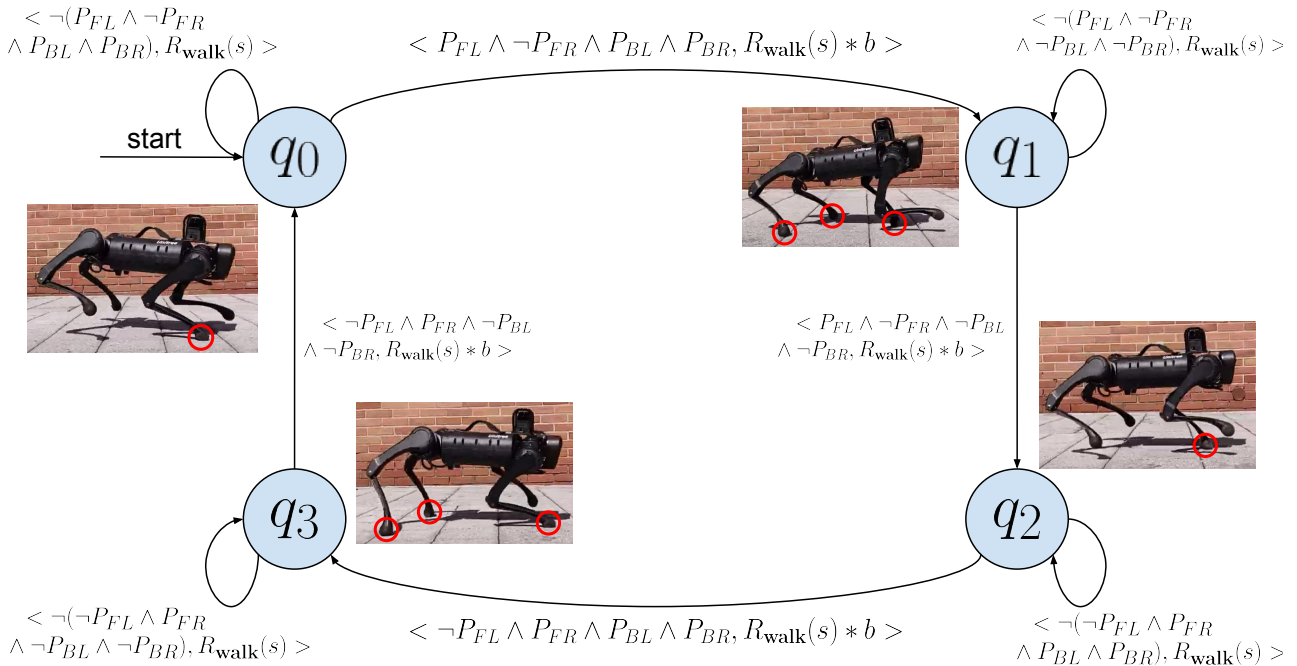


Figure 4: Three-One gait alternates three feet with one of the front feet.

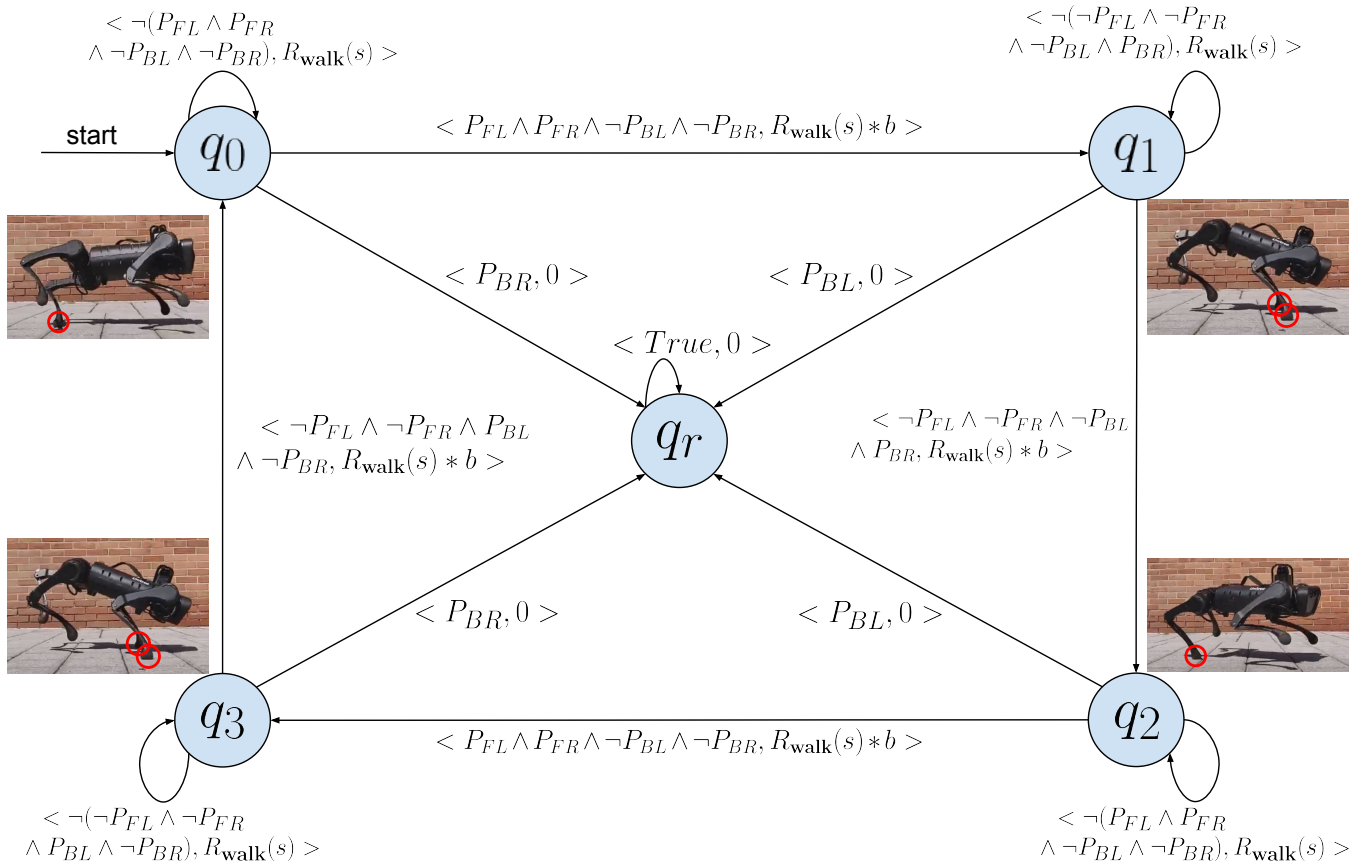


Figure 5: **Half-Bound** gait alternates the front feet with one of the back feet. State  $q_r$  discourages extraneous contacts with the wrong back foot, by setting all current and future reward to 0 when reached.