

## 利用CPG使雙足機器人平衡行走 Using CPG to make bipedal robot balance walking

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Biological investigations suggest that rhythmic movement in vertebrates, including humans, is mainly generated within the spinal cord rather than brain, by a combination of a rhythm generator [central pattern generator(CPG)] and reflex in response to the peripheral stimulus.

Then, bipedal robot walking is a rhythm motion, and motion of single foot is also a typically cyclical rhythm of movement that continuous period is achieved by combination of swing phase and standing phase.

Hence, we want to use CPG to generate a rhythm motion let bipedal robot can rhythmic walk, and using the sensor signal achieve adaptive balance walking when environmental change.

