

Self balancing robot

Emergency

Entry 1

D1=0

D2=0

D3=0

Pl=0

LED=0

[Emergency=0] {}

Non-Emergency

ON Entry 1 LED=1

Balancing system

Forwards

Entry 1

D1=0

D3=0

D2=1

Pl=1

moveForward

moveBackward

Backward

Entry 1

D1=1

D3=1

D2=0

Pl=0

[Emergency=1] {}

Gyroscope readings

Tilted Forward

[Tilt > 10°]
{moveForward}

[Tilt < -10°]
{}

Not Tilted

[Tilt < -10°]
{moveBackward}

[Tilt > 10°]
{}

Tilted backward

[button=1] {}

OFF

Entry 1

D1=0

D2=0

D3=0

Pl=0

LED=0

[button=0] {}