

{youtube}kvB58oI7jMU{/youtube}

The self balancing robot has a powerful ARM cortex-M3 120 MHz processor, L3G4200D 3 axis Digital Gyroscope, LSM303DLHC 3 axis accelerometer and 3 axis Magnetometer. It can be controlled through a GUI. The GUI allows you to experiment with various control parameters for understanding the underlying principals of optimal control.