Input 🡪 angle (MPU6050)

Output 🡪 -100 to 100

For output 0, motors will run on max speed (both)

For output 100, motor A = max, B=min

For output -100, motor A = min, B=max

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| input | -20° | -5° (small angle) | 0° | +5° | +20° |
| Output | -100 | -50 | 0 | 50 | 100 |
| Motor A | 100% | 100% | 100% | 50% | 0% |
| Motor B | 0% | 50% | 100% | 100% | 100% |

So there are two cases:

Output > 0 🡪 motorA=max, motorB=

Output < 0 🡪 motorA= ,motorB=max

if (Output > 0) {

motor1\_speed\_out = motor1\_speed;

motor2\_speed\_out = ((100.0 - abs(Output)) / 100.0) \* motor2\_speed;

} else { // Output<0

motor1\_speed\_out = ((100.0 - abs(Output)) / 100.0) \* motor1\_speed;

motor2\_speed\_out = motor2\_speed;

}