

Pin and variable definition:

Define TRIG as pin A1

Define ECHO as pin A0

Define wheels_Ctrl as pin 12

Define wheels_PWM as pin 3

Define steer_Ctrl as pin 13

Define steer_PWM as pin 11

Define speed as 100

Function check_distance():

- Write LOW to pin TRIG
- Wait 2 microseconds
- Write HIGH to pin TRIG
- Wait 10 microseconds
- Write LOW to pin TRIG
- Measure HIGH pulse duration on pin ECHO
- Divide duration by 58.00 to get the distance in cm
- Wait 10 milliseconds
- Return the distance

Function setup():

- Start serial communication at 9600 baud
- Set TRIG as output
- Set ECHO as input
- Set wheels_Ctrl as output
- Set wheels_PWM as output
- Set steer_Ctrl as output
- Set steer_PWM as output

Function loop():

- Write HIGH to steer_Ctrl
- Write PWM value 255 to steer_PWM

Function move_forward():

- Write HIGH to wheels_Ctrl
- Write PWM value 100 to wheels_PWM
- Write HIGH to steer_Ctrl
- Write PWM value (speed) to steer_PWM

Function move_backward():

- Write LOW to wheels_Ctrl
- Write PWM value (speed) to wheels_PWM
- Write HIGH to steer_Ctrl
- Write PWM value 255 to steer_Ctrl

Function turn_right():

- Write LOW to wheels_Ctrl
- Write PWM value 75 to wheels_PWM
- Write HIGH to steer_Ctrl
- Write PWM value 255 to steer_PWM

Function turn_left():

- Write HIGH to wheels_Ctrl
- Write PWM value (speed) to wheels_PWM
- Write LOW to steer_Ctrl
- Write PWM value 255 to steer_PWM

Function stop():

- Write LOW to wheels_Ctrl
- Write PWM value 0 to wheels_PWM

- Write LOW to steer_Ctrl
- Write PWM value 0 to steer_PWM
- Wait indefinitely