

```

// ***** wheels.c *****

// Project: Keil Labs and Project

// File: wheels.c

// Class: ENEL 351 Lab Works

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// Description: The project is based on the STM32F103RB that is being used in ENEL 351 Labs.

// It will also be used in the Project related to input and output of various sensors.


// =====

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// =====


// ***** Header Files *****

#include "stm32f10x.h"

#include "header.h"


// ***** Function Defination to move left set of tires forward *****

void leftForward()
{
    GPIOA->ODR |= GPIO_ODR_ODR8;
}


// ***** Function Defination to move left set of tires backward *****

void leftReverse()
{
    GPIOA->ODR |= GPIO_ODR_ODR9;
}

```

```
}
```

```
// ***** Function Defination to stop left set of tires *****
```

```
void leftStop()
```

```
{
```

```
    GPIOA->ODR &= ~GPIO_ODR_ODR8;
```

```
    GPIOA->ODR &= ~GPIO_ODR_ODR9;
```

```
}
```

```
// ***** Function Defination to move right set of tires forward *****
```

```
void rightForward()
```

```
{
```

```
    GPIOA->ODR |= GPIO_ODR_ODR10;
```

```
}
```

```
// ***** Function Defination to move right set of tires backward *****
```

```
void rightReverse()
```

```
{
```

```
    GPIOA->ODR |= GPIO_ODR_ODR11;
```

```
}
```

```
// ***** Function Defination to stop right set of tires *****
```

```
void rightStop()
```

```
{
```

```
    GPIOA->ODR &= ~GPIO_ODR_ODR10;
```

```
    GPIOA->ODR &= ~GPIO_ODR_ODR11;
```

```
}
```

```
// ***** Function Defination to move forward (4 by 4) *****
```

```
void completeGoForward()
{
    leftForward();
    rightForward();
}
```

```
// ***** Function Defination to move reverse (4 by 4) *****
```

```
void completeStop()
{
    leftStop();
    rightStop();
}
```

```
// =====
```

```
// *****IMPORTANT*****
```

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```
// =====
```