DIO APIs Prototypes:

```
void DIO_init()

{

 // initialize DIO Prepheral

}

void DIO_write()

{

 // to output on port
}

void DIO_read()

{

// to read input

}
```

PWM APIs Prototypes:

```
void PWM_init()
void PWM_start()
{
 // start pwm with specific frequecy and duty cycle
}
void PWM_stop()
```

Timer APIs Prototypes:

```
void TIMER_init()
void TIMER_start()
{
   // start counting till given number
}
void TIMER_stop()
void TIMER_checkStatus()
{
 // check current status of timer flags
}
```

Motors APIs Prototypes:

```
Motor_init()

{

 PWM_init()

}

Motor_speed()

{

     // set pwm duty cycle to specify the speed

}

Forward();

Backward();

Motor_stop()
```

Moods APIs Prototypes:

```
Moods_init()

{

  DIO_init();

  Timer_init();
}

Switch_mood()

{

 // check the current mood

 // set the next mood

 // check if the next mood is forward or backward

}
```