```c
#include "stm32f10x.h"

static int duty_deger = 0;
static int kontrol = 1;

int main(){
RCC ->APB2ENR |= (1<<2);          // PortA Enable
  GPIOA ->CRH &= ~(1<<6);         // Porta nin 9. pini çikis
  GPIOA ->CRH |= (1<<7) | (3<<4);

  RCC ->APB2ENR |= (1<<11);       // TIM1 Enable
  TIM1 ->CCMR1 |= (6<<12);        // Chanel-2
  TIM1 ->ARR = 36000;             // 2KHz
  TIM1->PSC = 0;
  TIM1 ->CCR2 = duty_deger;
  TIM1 ->CCER |= (1<<4);          // Chanel-2 Enable
  TIM1 ->BDTR |= (1<<15);

  SysTick -> LOAD = 720000/8;     //10ms
  SysTick ->CTRL = 3;             //SysTick ve Tickint Enable
  TIM1 ->CR1 |= 1;                //TIM1 basla

  while(1){ }

}

void SysTick_Handler(){

  if(kontrol){
  duty_deger += 360;
  if(duty_deger >= 36000) { kontrol = 0; }
  }

  else{
  duty_deger -= 360;
  if(duty_deger <=0 ) { kontrol = 1; }
  }

  TIM1 ->CCR2 = duty_deger;
}

```