

## LAMPIRAN

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### 1. LISTING PROGAM

```
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27, 2, 1, 0, 4, 5, 6, 7, 3, POSITIVE)
int jalan=-1;
int belakang=9;
int waktu1=0;
int mode1=6;
int mode2=7;
int star=0;
int mulai=8;
int waktu=0;
int durasi=0;
int detik=59;
int menit=0;
int c=1;
int d=1;
int e=1;

Void Setup() {
PinMode (belakang,OUTPUT)
PinMode (mode1,OUTPUT)
PinMode (mode2,OUTPUT)
PinMode (mulai,INPUT)
lcd.begin(16,4);
lcd.setCursor(3,2);
lcd.print("BRA TERAPI");
delay(2000);
lcd.clear();
Serial.begin(9600);}
```

```
void loop() {  
    jalan=-1;  
    digital Write(belakang,LOW);  
    lcd.clear();  
    lcd.setCursor(2,1);  
    lcd.print("SETTING WAKTU");  
    lcd.setCursor(4,2);  
    lcd.print(waktu);  
    lcd.print("MENIT");  
  
    waktu1=digitalRead(mode1);  
    if(waktu1 !=e) {  
        if(waktu1==LOW) {  
            waktu=15;  
        }  
        e=waktu1; }  
    waktu2=digitalRead(mode2);  
    if(waktu2 !=c) {  
        if(waktu2==LOW) {  
            waktu=20;  
        }  
        C=waktu2; }  
    star = digitalRead(mulai);  
    if(star !=d) {  
        if(star==LOW) {  
            jalan=waktu-1;  
        }  
    }  
}
```

```
d=star:  
    lcd.clear();  
    lcd.print("SEDANG TERAPI");  
    lcd.setCursor(3,2);  
    lcd.print(waktu);  
    lcd.print(":");  
    lcd.print("00");  
    lcd.print("MENIT");  
}  
  
while(jalan>=0){  
    digitalWrite(belakang,HIGH);  
    waktu=0;  
    durasi=durasi+1;  
    if (durasi==7){  
        durasi=0;  
        lcd.clear();  
        lcd.setCursor(2,1);  
        lcd.print("SEDANG TERAPI");  
        lcd.setCursor(5,2);  
        lcd.print(":");  
        if(jalan>=10){  
            lcd.setCursor(3,2);  
            lcd.print(jalan);  
        }  
    }  
}
```

## 2. GAMBAR RANGKAIAN KESELURUHAN

