LAMPIRAN A
Wiring Diagram
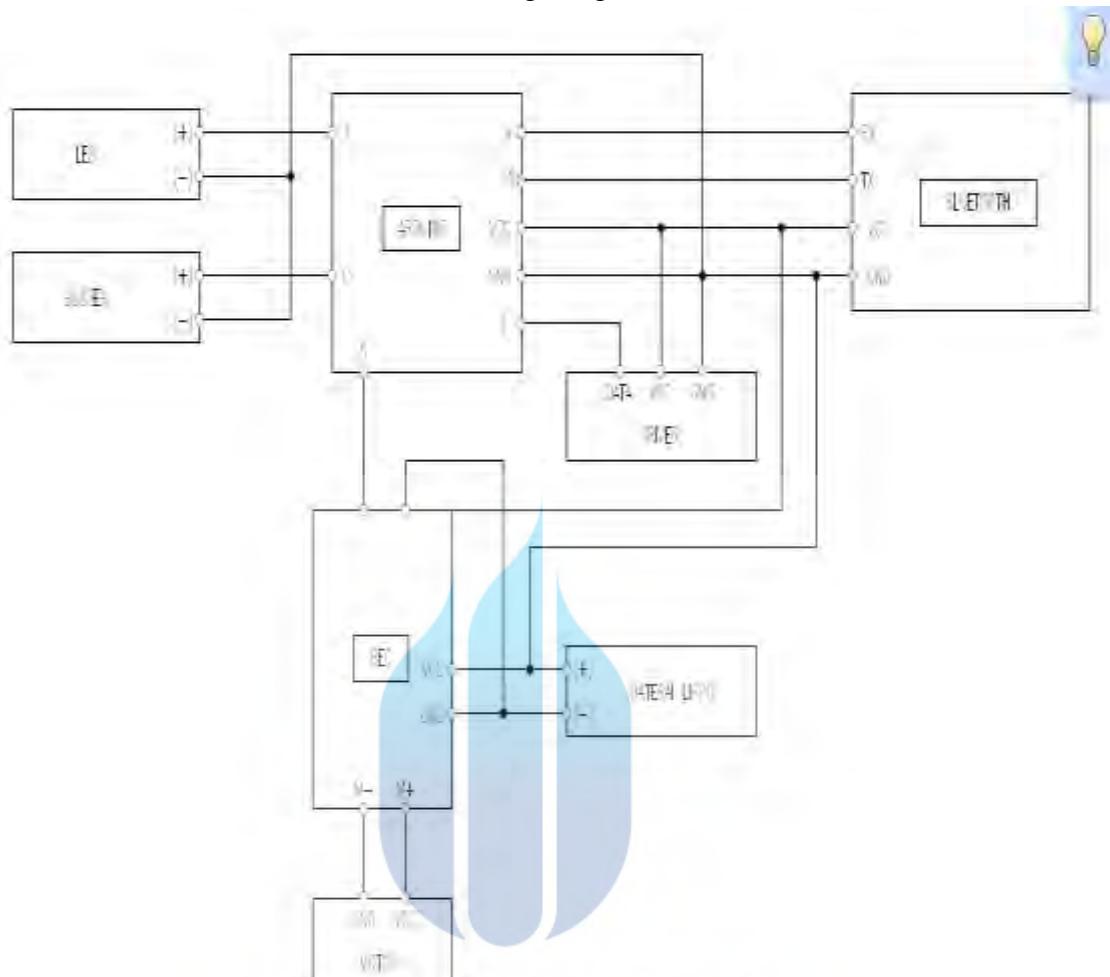
```
const int BTState  =  2;

const int lights   =  3;

const int motorA1  =  5;

const int buzzer   = 11;

const float maxBattery = 8.0;

int perVolt;

float voltage = 0.0;

int level;

long previousMillis = -1000*10;

long interval = 1000*10;

unsigned long currentMillis;

int i=0;

int j=0;

int state;

int vSpeed=200;
void setup() {

  pinMode(motorA1, OUTPUT);

  Serial.begin(9600);}


void loop() {

    //if(digitalRead(BTState)==LOW) { state='S'; }

    if(Serial.available() > 0){state = Serial.read();}

    if (state == '0'){vSpeed =   0;}

  else if (state == '1'){vSpeed = 100;}
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    else if (state == '2'){vSpeed = 180;}

    else if (state == '3'){vSpeed = 200;}

    else if (state == '4'){vSpeed = 255;}

/*Forward**/

      if (state == 'F') {

    analogWrite(motorA1, vSpeed);}

/*Backward*/

    else if (state == 'B') {

      analogWrite(motorA1, vSpeed);}

/*Lights*/

    else if (state == 'W') {

      if (i==0){ digitalWrite(lights, HIGH);i=1;}

    else if (i==1){digitalWrite(lights, LOW);i=0;}state='n';}

/*Horn sound*/

    else if (state == 'V'){ if (j==0){tone(buzzer, 1000);j=1;}

    else if (j==1){noTone(buzzer); j=0;}state='n';}

/*Stop*/

    else if (state == 'S'){

      analogWrite(motorA1, 0);}

/*Battery*/

    currentMillis = millis();

    if(currentMillis - (previousMillis) > (interval)) {

      previousMillis = currentMillis;

      voltage = (analogRead(A0)*5.015 / 1024.0)*11.132;

      perVolt = (voltage*100)/ maxBattery;

        if (perVolt<=75)            { level=0; }
```

```
else if (perVolt>75 && perVolt<=80) { level=1; }

else if (perVolt>80 && perVolt<=85) { level=2; }

else if (perVolt>85 && perVolt<=90) { level=3; }

else if (perVolt>90 && perVolt<=95) { level=4; }

else if (perVolt>95)           { level=5; }

Serial.println(level); } }
```

LAMPIRAN C
Hasil implementasi alat