

APPENDIX

```
#include<Servo.h>

Servo myServo;

const int pinRain = 3;

const int pinLdr = A0;

int hujan, cahaya;

int open = 110;
int close = 10;

void setup()
{

Serial.begin(9600);

myServo.attach(4);

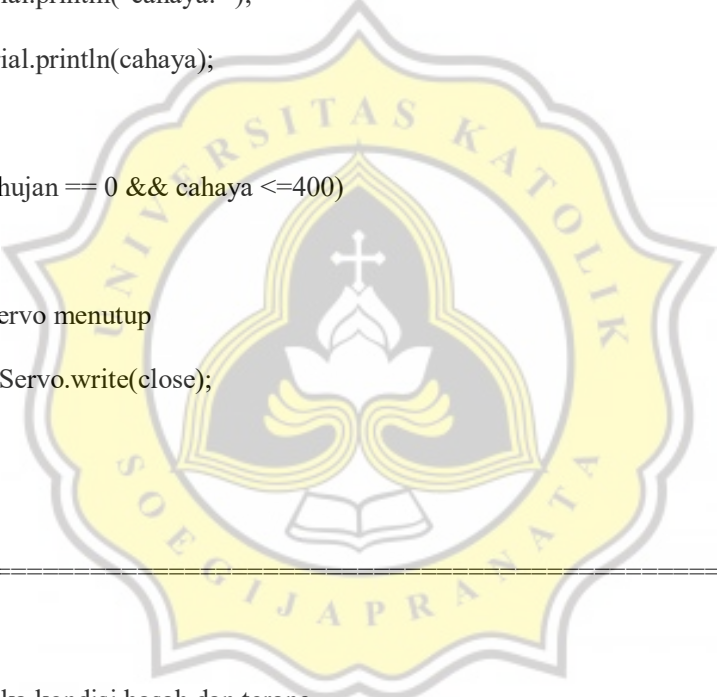
pinMode(pinRain, INPUT);

pinMode(pinLdr, INPUT);

}

void loop()
```

```
{  
  
hujan = digitalRead(pinRain);  
cahaya = analogRead(pinLdr);  
  
Serial.println("hujan: ");  
Serial.println(hujan);  
Serial.println("cahaya: ");  
Serial.println(cahaya);  
  
if (hujan == 0 && cahaya <=400)  
{  
  // servo menutup  
  myServo.write(close);  
}  
  
//  
  
// jika kondisi basah dan terang  
else if (hujan == 0 && cahaya >=400)  
{  
  // servo menutup  
  myServo.write(close);  
}
```



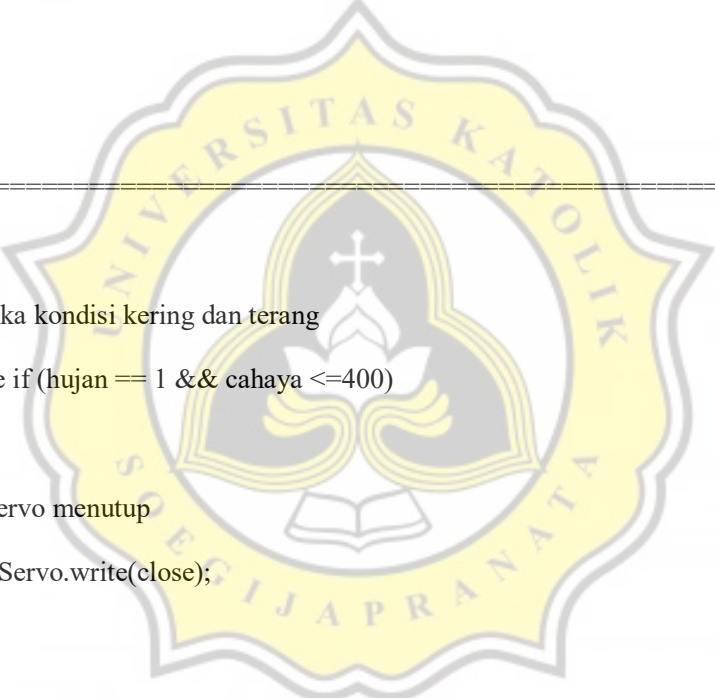
```
//=====

// jika kondisi kering dan gelap
else if (hujan == 1 && cahaya >=400)
{
// servo menutup
myServo.write(open);
}

//=====

// jika kondisi kering dan terang
else if (hujan == 1 && cahaya <=400)
{
// servo menutup
myServo.write(close);
}

// delay jalannya program
delay(100);
}
```



PLAGIARISM
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APPROXIMATELY

Report #11000688

Introduction Background Hydroponic comes from Greek word, Hydro which means water and Ponos which means is power. Today we know hydroponic is farming with water nutrition without using soil. Water usage to do hydroponic is less than common soil farm. This method are very popular lately because hydroponic farm is more efficient and easy for people who busy all day but want to do some mini gardening or for farmer because hydroponic plants grow faster than soil method. Using arduino uno, breadboard and servo we can make some tools that can help people doing hydroponic farm without worry. Arduino as microcontroller and servo as tool that serves as roof. This combination become automatic roof depends on weather and sunlight intensity. Sensor that use in here is sensor ldr and rain drop sensor. All of this combinations become one tool can help farmer or people who had hobby farming hydroponic can do farm efficiently. Theres a way to care hydroponic plant without beside the plant all day, because hydroponic farm need more care than other planting method. Thats why we do this research to help hydroponic farmer and other people farm more efficiently. beside all these, growing plant in hydroponic method always faster than other method this is because the habit of hydroponic method are using nutrient water and got right ammount of sunlight instesity. Problem

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