DPK-D LEMBAR KERJA PESERTA DIDIK ARDUINO PROJECTS

Kelompok :

Kelas : X PPLG 6

Nama Anggota

1. Nauval Firjatullah M(23)

Assignment :

Ketentuan:

- **1.** Kumpulkan dengan format file: PDF dengan Judul file: **KELAS_NomorKelompok**
- 2. Tugas Praktik Membuat Project Arduino Sederhana dengan menggunakan Tinkercad :
 - a. Buat Project Arduino Sederhana dengan Menggunakan Tinkercad (https://www.tinkercad.com/)
 - b. Ide Pembuatan project Arduino bebas sesuai dengan hasil diskusi setiap kelompok, pencarian ide dapat menggunakan referensi berikut:

https://projecthub.arduino.cc/, https://www.tinkercad.com/projects/,

c. Contoh project Smart Home **Sistem Kunci Pintu Dengan Password Menggunakan Arduino**

https://youtu.be/V5zWUNi9c7k

- d. Project boleh dimodifikasi dan ditambahkan sesuai kreativitas
- e. Pengerjaan secara kelompok tetapi pengumpulan secara individu (Anggota kelompok berjumlah 3-4 siswa)

Kumpulkan link PUBLIC DRIVE!

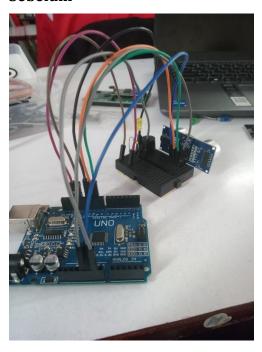
Laporan Arduino Projects

1. **Judul Project**

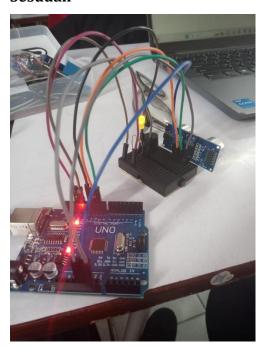
Membuat Sensor Arduino Suara

2. Deskripsi Project

Sebelum



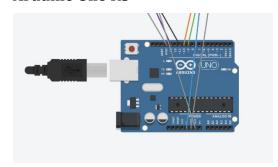
Sesudah



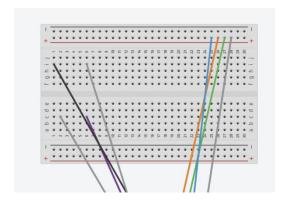
Codingan arduino

```
Select Board
 sketch_feb22a.ino
                  1 // defines pins numbers
2 const int trigPin = 9;
3 const int echoPin = 10;
4 const int buzzer = 11;
5 const int ledPin = 13;
                           // defines variables
long duration;
int distance;
int safetyDistance;
                           void setup() {
pinMode(trigPin, OUTPUT); // Sets the trigPin as an Output
pinMode(echoPin, INPUT); // Sets the echoPin as an Input
pinMode(buzzer, OUTPUT);
pinMode(ladPin, OUTPUT);
Serial.begin(9600); // Starts the serial communication
}
                             void loop() {
// Clears the trigPin
digitalWrite(trigPin, LOW);
delayMicroseconds(2);
                             // Sets the trigPin on HIGH state for 10 micro seconds
digitalWrite(trigPin, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin, LOW);
                             // Reads the echoPin, returns the sound wave travel time in microseconds
duration = pulseIn(echoPin, HIGH);
                             // Calculating the distance distance duration*0.034/2;
                             safetyDistance = distance;
if (safetyDistance <= 5){
    digitalWrite(buzzer, HIGH);
    digitalWrite(ledPin, HIGH);</pre>
                                          digitalWrite(ledPin, HIGH);
                                       digitalWrite(buzzer, LOW);
digitalWrite(ledPin, LOW);
                                     // Prints the distance on the Serial Monitor
Serial.print("Distance: ");
Serial.println(distance);
```

3. Komponen Project yang digunakan pada Tinkercad Arduino Uno R3



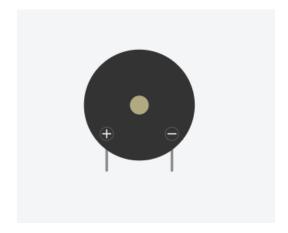
Breadboard Small



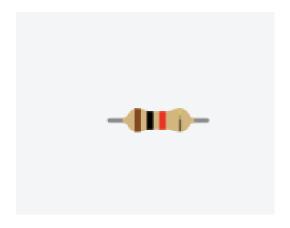
Ultrasonis Distance Sensor



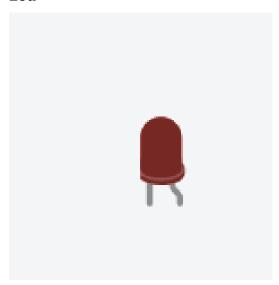
Piezo



Resistor



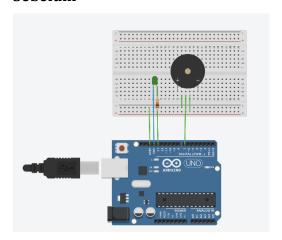
Led



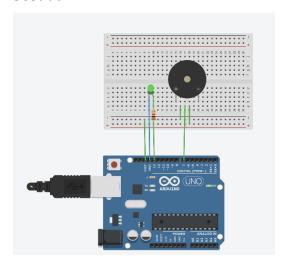
Kabel



4. Hasil Simulasi Project pada Tinkercad Sebelum



Sesudah



Kode

5. Link Project Tinkercad

https://www.tinkercad.com/things/1HOY0JcaODa-grand-amur-krunk/editel?tenant=circuits
===== "Semangat dan Selamat Belajar!" =====