Design and Development of Automation Planter Machine for Agriculture applications

CODE:

```cpp
#include <Servo.h>


// Pin definitions

const int trigPin = 9;

const int echoPin = 10;

const int servoPin = 3;

const int motorPin = 5;


Servo seedServo;


long duration;

int distance;

int seedSpacing = 20; // spacing in cm


void setup() {

  Serial.begin(9600);

  pinMode(trigPin, OUTPUT);

  pinMode(echoPin, INPUT);

  pinMode(motorPin, OUTPUT);

  seedServo.attach(servoPin);


  digitalWrite(motorPin, HIGH); // Start DC motor

}
```

```
void loop() {

  // Measure distance

  digitalWrite(trigPin, LOW);

  delayMicroseconds(2);

  digitalWrite(trigPin, HIGH);

  delayMicroseconds(10);

  digitalWrite(trigPin, LOW);


  duration = pulseIn(echoPin, HIGH);

  distance = duration * 0.034 / 2;


  if (distance >= seedSpacing) {

    dropSeed();

    delay(1000); // wait before next check

  }
}


void dropSeed() {

  seedServo.write(90);  // Drop seed

  delay(500);

  seedServo.write(0);   // Reset servo

}
```