

## SOURCE CODE FOR PROJECT

```
#include <AFMotor.h>
```

```
#define trigPin 12
```

```
#define echoPin 13
```

```
AF_DCMotor motor1(1,MOTOR12_64KHZ);
```

```
AF_DCMotor motor2(2, MOTOR12_8KHZ);
```

```
void setup() {
```

```
    pinMode(trigPin, OUTPUT);
```

```
    pinMode(echoPin, INPUT);
```

```
}
```

```
void loop() {
```

```
    long duration, distance;
```

```
digitalWrite(trigPin, LOW);
```

```
delayMicroseconds(2);
```

```
digitalWrite(trigPin, HIGH);
```

```
delayMicroseconds(10);
```

```
digitalWrite(trigPin, LOW);
```

```
duration = pulseIn(echoPin, HIGH);
```

```
distance = (duration/2) / 29.1;
```

```
if (distance < 20) {
```

```
motor1.setSpeed(255);
```

```
motor2.setSpeed(0);
```

```
motor1.run(BACKWARD);
```

```
motor2.run(BACKWARD);
```

```
delay(2000); //CHANGE THIS ACCORDING TO HOW THE ROBOT TURNS.
```

```
}
```

```
else {
```

```
motor1.setSpeed(160); //CHANGE THIS ACCORDING TO HOW FAST YOUR ROBOT SHOULD GO.
```

```
motor2.setSpeed(160); //CHANGE THIS TO THE SAME VALUE AS YOU PUT IN ABOVE.
```

```
motor1.run(FORWARD);
```

```
motor2.run(FORWARD);
```

```
}
```

```
}
```