

```
/*Example sketch to control a stepper motor with the push of a button with
DRV8825 stepper motor driver AccelStepper library and Arduino. More info:
https://www.makerguides.com */
```

```
/*The following code uses a momentary push button connected between GND and
digital pin 4 of the Arduino.
```

```
When the button is pressed, the motor turns from the closed to the open
position.
```

```
When the button is pressed again, it moves back to the closed position.
```

```
You could add a homing routine in the setup section with the use of a limit
switch, to set the 0 position.*/
```

```
#include <AccelStepper.h>
```

```
//Define stepper motor and button connections
```

```
#define dirPin 2
```

```
#define stepPin 3
```

```
#define buttonPin 4
```

```
//Define variables
```

```
// Variable that stores the state of the button:
```

```
int buttonReading;
```

```
// State of the blinds, LOW is closed, HIGH is open:
```

```
int state = LOW;
```

```
// Previous state of the button:
```

```
int previous = LOW;
```

```
//Create stepper object
```

```
AccelStepper stepper(1, stepPin, dirPin);
```

```
void setup()
```

```
{
```

```
  // Begin serial communication:
```

```
  Serial.begin(9600);
```

```
  // Set buttonPin as an input:
```

```
  pinMode(buttonPin, INPUT_PULLUP);
```

```
  // Set maximum steps per second:
```

```
  stepper.setMaxSpeed(200);
```

```
  // Here you could put a homing sequence:
```

```
  stepper.setCurrentPosition(0);
```

```
}
```

```
void loop()
```

```
{
buttonReading = digitalRead(buttonPin);

if (buttonReading == LOW && previous == HIGH) {
  if (state == LOW) {
    state = HIGH;
  }
  else {
    state = LOW;
  }
}
}
```

```
previous = buttonReading;
```

```
if (state == HIGH) {
  // Run to the open position (400):
  while (stepper.currentPosition() != 400)
  {
    stepper.setSpeed(200);
    stepper.runSpeed();
  }
  Serial.println("open");
}
```

```
if (state == LOW) {
  // Run to the closed position (0):
  while (stepper.currentPosition() != 0)
  {
    stepper.setSpeed(-200);
    stepper.runSpeed();
  }
  Serial.println("closed");
}
}
```