This circuit drives one bidirectional motor from one channel of an arduino output using two channels of a relay module

Relay module

K?

Relay-SPDT

Arduino

S_Mpos

SW-PB

K?

Relay-SPDT

**Switch
Man/Auto**

Auto M+

Man M+

Auto M-

Man M-

SW DPDT

M+

M-

M Motor

**Switch
DN/UP**

SW DPDT