IA-PARTS MAGIC PANEL v 1.5

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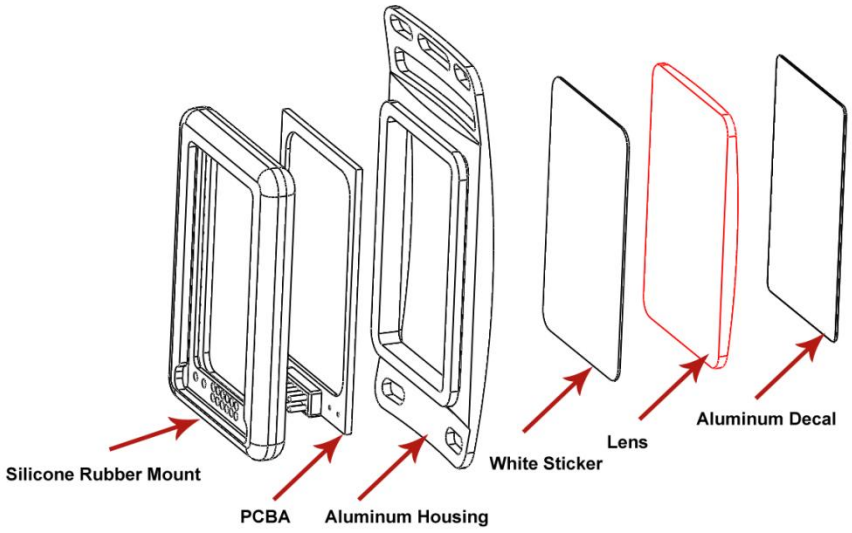
MAGIC PANEL INSTALLATION



Step 1: Apply White Sticker

Remove paper backing and apply to flat side of lens.
Remove clear application skin.

Step 2: Aluminium Decal

Remove paper backing
Carefully apply to front of lens.
** Most important – use a scotch- fine grey pad and carefully rough up the surface. This will remove the gloss finish and start looking more realistic. You have 2 stickers so don't be afraid.

Step 3: Solder Connector

Although not mandatory, it is recommended to solder the header pin connector. Included is a strait and angled connector. If you decide to use the angled connector you must lift it off the board to clear the rubber holder. That being said – solder the connector to the board.

Step 4: Rubber Holder

Install the rubber holder onto aluminium frame, and then insert the PCB.

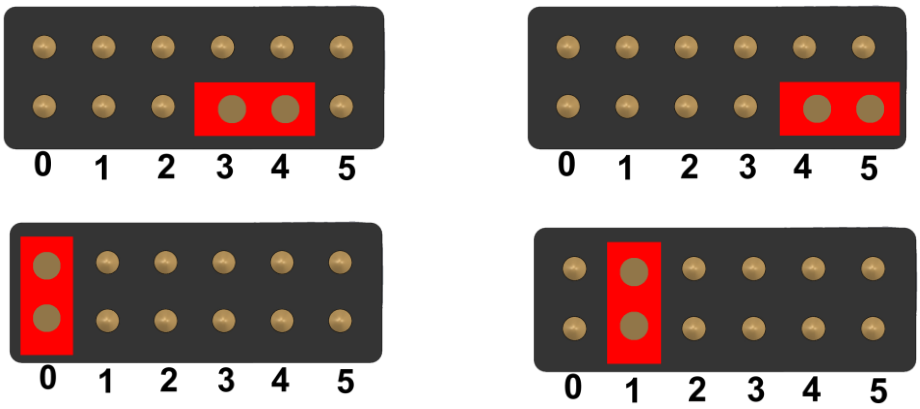
Step 5: Mount Assembly to Dome

WHAT TO KNOW:

Your MP board will run on 5-13V (**6V is best**)

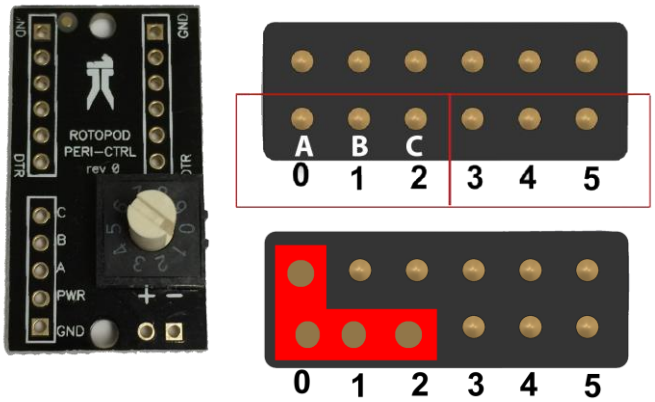
Default state (No jumpers) is to do nothing.

Jump pins 3-4 SOLID RED
Jump pins 4-5 DEMO – randomly picks a pattern every 1-2 minutes
Jump pins 0-GND
Jump pins 1-GND



Connect pins 0-1-2-GND – Rotary Switch input.
{Rotary switch Input (RSI) will allow 7 extra patterns in a standalone mode}

RSI-0 OFF
RSI-1 Fade IN/OUT
RSI-2 Flash
RSI-3 2 loop
RSI-4 Trace Down
RSI-5 One Test
RSI-6 Random - Fast
RSI-7 Random - Slow
RSI-8 {Same as 0}
RSI-9 {Same as 1}



The 3 bit Rotary dip switch is not included- but you may have one from your periscope light kit or you can build your own.

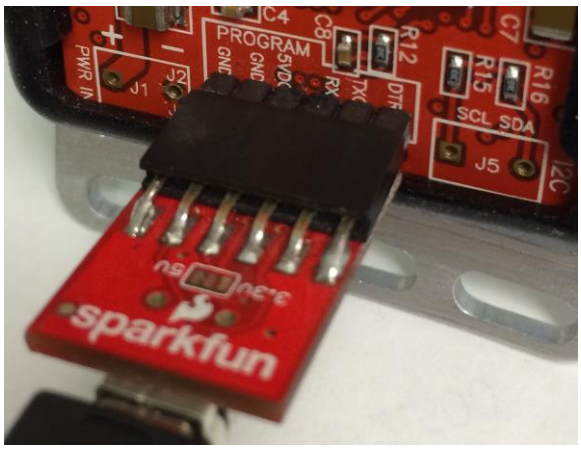
I feel it is important to mention that the ultimate design for the MP is to be controlled by an external controller, such as: Jedi, R2controller, Marcduino, or something new. The perfect Droid operating system does not exist {yet}. We made sure that this was programmable to be compatible with it when it is.

UPLOADING NEW CODE:

Arduino program is used to modify and upload code http://www.arduino.cc/

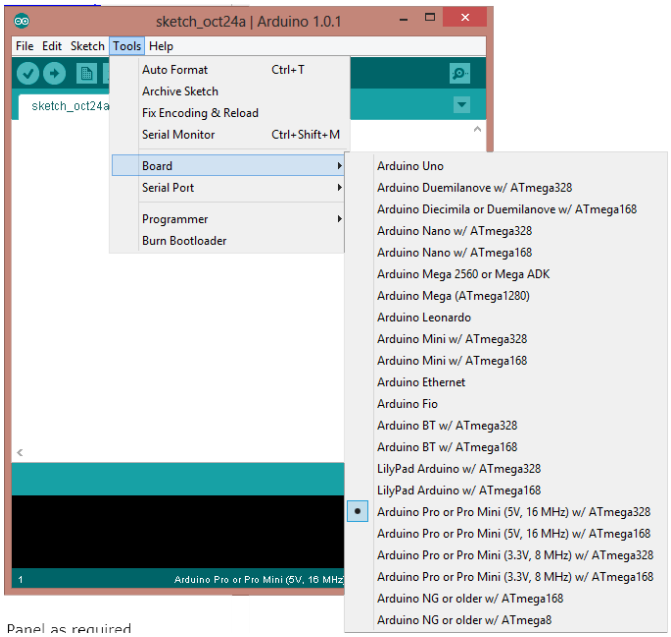
To upload code to the magic panel a 5v FTDI breakout board is needed:
https://www.sparkfun.com/products/9716

This USB adapter connects via a 6 pin lead to the row of PROGRAM pins. The pins on the panel and the breakout are in the same and the correct order. The TX and RX connect to each other on the other device e.g. Tx to Rx and Rx to Tx.



Once connected plug it into your computer using the USB and give Windows a minute to find and install the device. If you encounter any problems please see the Sparkfun website. It has lots of information on connecting and installing the FTDI breakout board and its drivers. You will need to select the COM port and the device under the TOOL section. Select the new Com port and select the board type as:

'Arduino Pro or Pro Mini (5v, 16MHz) w/ ATmega328'



Panel as required

You are now free to modify and upload new code to the Magic Panel as required.

FOR UPDATED CODE AND TIPS CHECK BACK AT THE FORUMS @ Astromech.net

Special thanks to Bighappydude for his code changes and patterns added to V10 code 10/22/13

IA PARTS brought to you by mcwhlr & rotopod