What must the chip + pcb do

* Regular i/o components (not i2c qwicc, no breakout board) must connect to the chip + pcb
* Each input must be addressable once connected to the chip + pcb
  + Can we buy registers/memory
  + Do we want to control which component goes with which address
* If we have a set of 4 components
  + We need to identify which component has control of the sda/scl
* We only need to create the peripheral part of i2c (the master is the mcu)

Links because I can’t find anything on Chrome any more

* <https://ww1.microchip.com/downloads/aemDocuments/documents/APID/ProductDocuments/DataSheets/MCP23017-Data-Sheet-DS20001952.pdf>
* <https://www.microchip.com/en-us/product/mcp23017>
* <https://www.microchip.com/en-us/products/memory>
* <https://www.microchip.com/en-us/search?searchQuery=memory&category=ALL&fq=start%3D0%26rows%3D10>
* <https://www.digikey.com/en/products/detail/adafruit-industries-llc/4648/12751859?utm_adgroup=&utm_source=google&utm_medium=cpc&utm_campaign=PMax%20Shopping_Product_Low%20ROAS%20Categories&utm_term=&utm_content=&utm_id=go_cmp-20243063506_adg-_ad-__dev-c_ext-_prd-12751859_sig-Cj0KCQjw1aOpBhCOARIsACXYv-cxGodcRNIABTvldvDmhwZ16UHbcp1XyRzvVDFqG-0txbtMKvzcCmoaAk05EALw_wcB&gclid=Cj0KCQjw1aOpBhCOARIsACXYv-cxGodcRNIABTvldvDmhwZ16UHbcp1XyRzvVDFqG-0txbtMKvzcCmoaAk05EALw_wcB>
* <https://www.digikey.com/en/products/detail/microchip-technology/MCP3427-E-UN/2179259?utm_adgroup=Integrated%20Circuits&utm_source=google&utm_medium=cpc&utm_campaign=Dynamic%20Search_EN_Product&utm_term=&utm_content=Integrated%20Circuits&utm_id=go_cmp-120565755_adg-9159612915_ad-665604606680_dsa-112117096155_dev-c_ext-_prd-_sig-Cj0KCQjwsp6pBhCfARIsAD3GZub0d2W33pe52Rd0q8JwhS_46VBEZuznP3Tj_HmTQYWLtczktjCA_noaAisAEALw_wcB&gclid=Cj0KCQjwsp6pBhCfARIsAD3GZub0d2W33pe52Rd0q8JwhS_46VBEZuznP3Tj_HmTQYWLtczktjCA_noaAisAEALw_wcB>
* <https://www.iascaled.com/store/I2C-MCP3427>
* <https://ww1.microchip.com/downloads/en/DeviceDoc/22226a.pdf>

Resources Document

Parts Spreadsheet

List of Questions and Answers

List of Ideas

List of Tasks presented neatly

Immediate

Long term

Depdendencies

Tabs (10/23)

* <https://github.com/adafruit/Adafruit-MCP23017-Arduino-Library/blob/master/examples/mcp23xxx_interrupt/mcp23xxx_interrupt.ino>
* <https://github.com/adafruit/Adafruit-MCP23017-Arduino-Library/issues/58>
* <https://github.com/mathertel/RotaryEncoder/blob/master/examples/SimplePollRotator/SimplePollRotator.ino>
* <https://stackoverflow.com/questions/53457467/arduino-uno-serial-monitor-printing-garbage#:~:text=This%20could%20be%20anything%20from,the%20COM%20port%20at%20speed>.
* <https://www.circuitbasics.com/programming-with-classes-and-objects-on-the-arduino/>
* <https://forum.arduino.cc/t/how-to-use-pin-4-and-5-for-rotary-encoder-in-arduino-ono/1111326/5>
* <https://github.com/maxgerhardt/rotary-encoder-over-mcp23017/commit/1699a61b68c2da5667a394357467b778fea39044#diff-541f29df019f372c0b31eb7c6a65d9f4fcee1f7ab7c4cb24d9857ad406cbc583>
* <https://github.com/maxgerhardt/rotary-encoder-over-mcp23017>
* <https://github.com/maxgerhardt/rotary-encoder-over-mcp23017/blob/master/lib/Rotary-master/Rotary.h>
* <https://www.simplilearn.com/tutorials/cpp-tutorial/guide-to-understand-cpp-header-files#:~:text=Instead%20of%20writing%20the%20code,cpp%20extension>.