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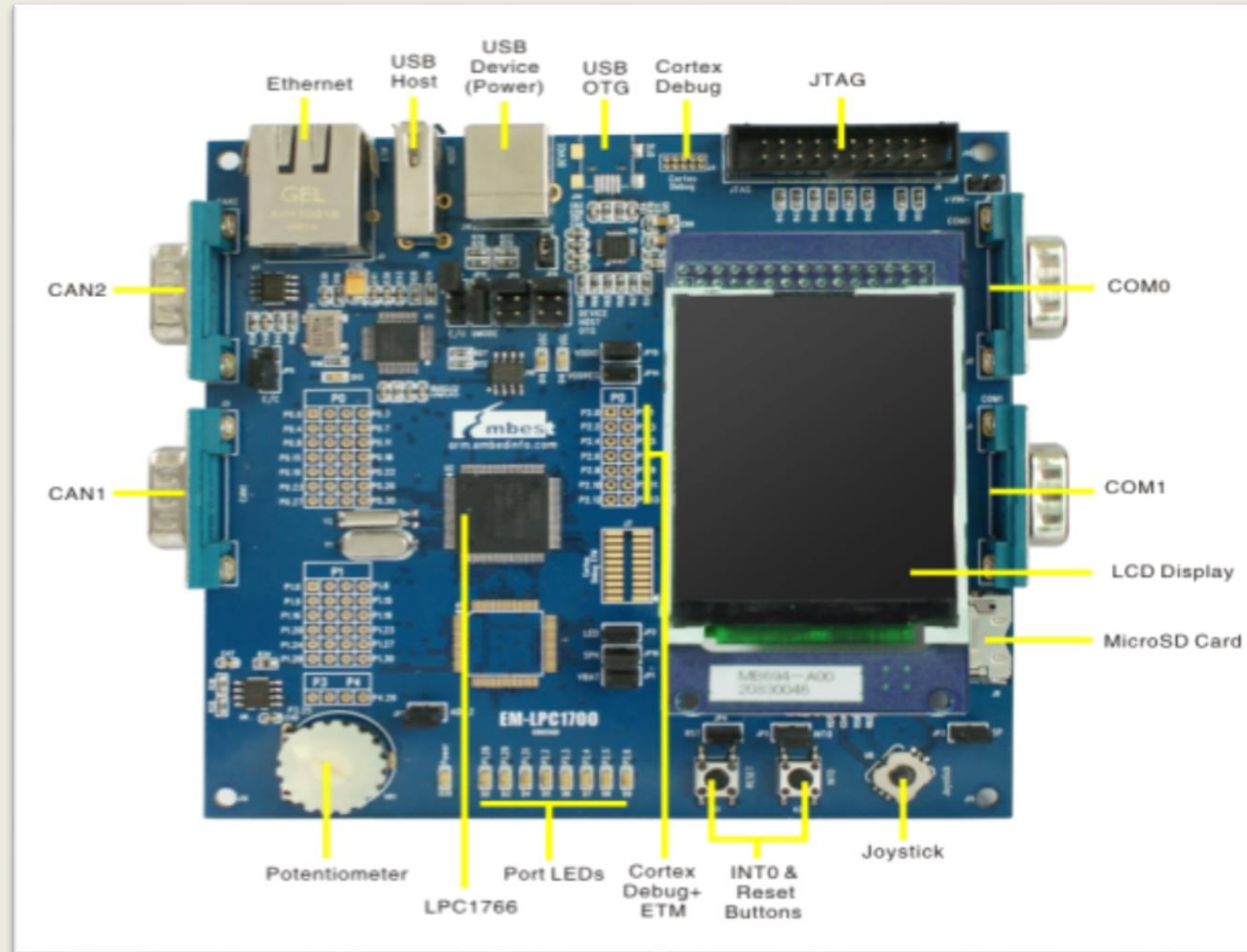
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1.1 Board overview



- The frequency up to 100MHz
- Internal Memory: 512KB flash memory & 64KB SRAM
- RS232 & CAN Interfaces
- Ethernet, JTAG & ETM Interface
- LCD Display
- USB Interface
- Analog Output & Input
- Mini SD Card Interface

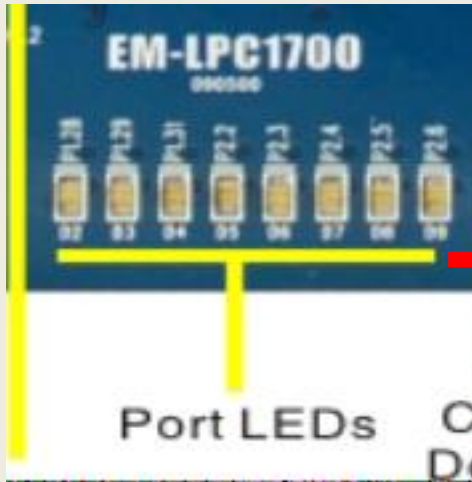
1.2 Evaluation Board

#	Pin	Type	IO Assignment
1	P1.28 , P1.29, P1.31, P2.2, P2.3, P2.4, P2.5, P2.6	I/O	LEDs
2	P2.10	I/O	Button (EINT0)
3	P1.20 , P1.23 , P1.24 , P1.25, P1.26	I/O	Joystick
4	RSTOUT, P0.8, P0.7, P0.6, P0.5 , P4.28		LCD
5	P0.25	I/O	ADC reading

The two power supply modes below through JP12 configuration.

- 1) Supply 5V DC through power jack (JP11) on the board.
- 2) Supply power through USB connector (CON1) on the board, the current should be less than 500mA.

2.GPIO output



P1.28

P1.29

P1.31

P2.2

P2.3

P2.4

P2.5

P2.6

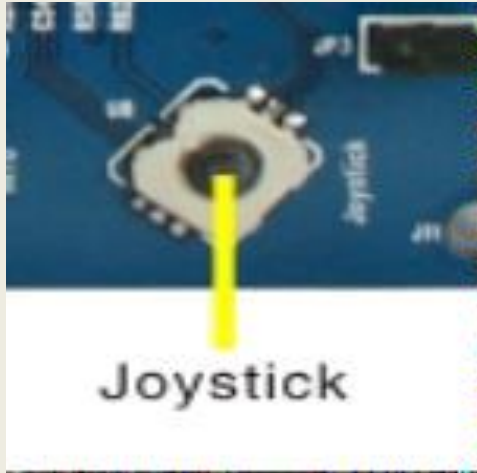
Port: 1

Pin: 28

Using the function in
GPIO_LPC17xx.h:

```
/**
 * \fn          void GPIO_PinWrite (uint32_t port_num,
 *                               uint32_t pin_num,
 *                               uint32_t val);
 *
 * \brief       Write port pin
 * \param[in]   port_num    GPIO number (0..4)
 * \param[in]   pin_num     Port pin number
 * \param[in]   val         Port pin value (0 or 1)
 */
extern void GPIO_PinWrite (uint32_t port_num,
                           uint32_t pin_num,
                           uint32_t val);
```

3.GPIO input



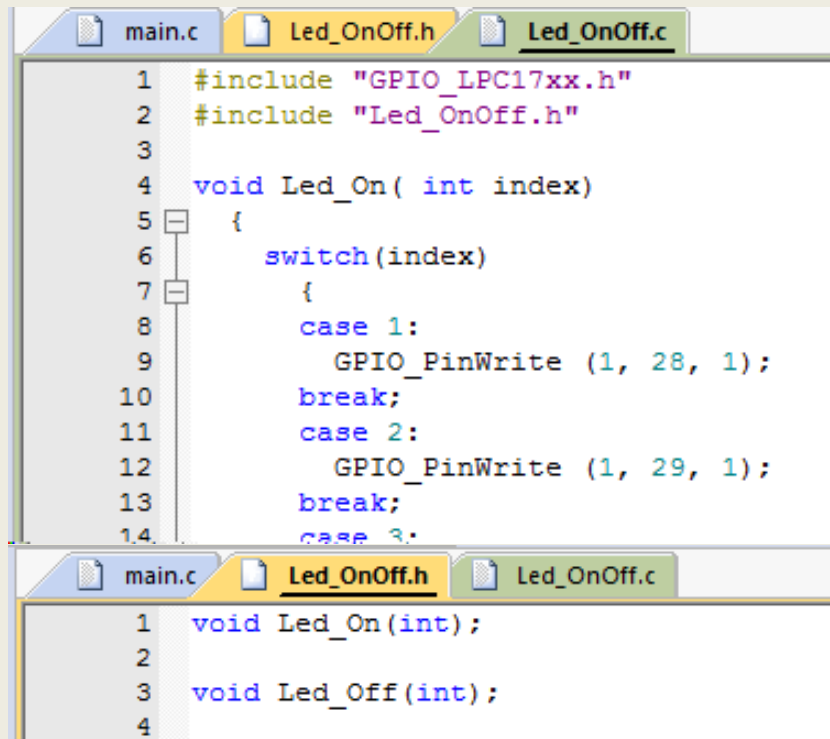
- P1.20
- P1.23
- P1.24
- P1.25
- P1.26

Reading the status of Joystick:

```
GPIO_PinRead(uint32_t port_num, uint32_t pin_num);
```

4. Library

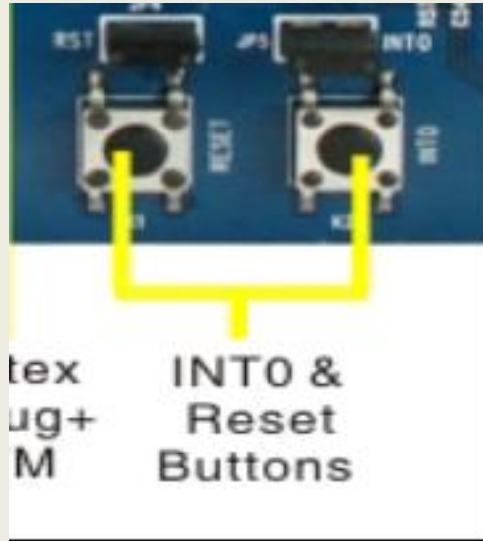
- Creating 2 files as name:
Led_OnOff.c and ***Led_OnOff.h***



The screenshot shows the Keil IDE with two files open: `Led_OnOff.h` and `Led_OnOff.c`. The `Led_OnOff.c` file contains the implementation of the `Led_On` function, which uses a switch statement to write to different GPIO pins based on the index. The `Led_OnOff.h` file contains the function declarations for `Led_On` and `Led_Off`.

```
main.c | Led_OnOff.h | Led_OnOff.c
1  #include "GPIO_LPC17xx.h"
2  #include "Led_OnOff.h"
3
4  void Led_On( int index)
5  {
6      switch(index)
7      {
8          case 1:
9              GPIO_PinWrite (1, 28, 1);
10             break;
11             case 2:
12                 GPIO_PinWrite (1, 29, 1);
13                 break;
14             case 3:
15                 GPIO_PinWrite (1, 30, 1);
16                 break;
17             case 4:
18                 GPIO_PinWrite (1, 31, 1);
19                 break;
20             case 5:
21                 GPIO_PinWrite (1, 32, 1);
22                 break;
23             case 6:
24                 GPIO_PinWrite (1, 33, 1);
25                 break;
26             case 7:
27                 GPIO_PinWrite (1, 34, 1);
28                 break;
29             case 8:
30                 GPIO_PinWrite (1, 35, 1);
31                 break;
32             case 9:
33                 GPIO_PinWrite (1, 36, 1);
34                 break;
35             case 10:
36                 GPIO_PinWrite (1, 37, 1);
37                 break;
38             case 11:
39                 GPIO_PinWrite (1, 38, 1);
40                 break;
41             case 12:
42                 GPIO_PinWrite (1, 39, 1);
43                 break;
44             case 13:
45                 GPIO_PinWrite (1, 40, 1);
46                 break;
47             case 14:
48                 GPIO_PinWrite (1, 41, 1);
49                 break;
50             case 15:
51                 GPIO_PinWrite (1, 42, 1);
52                 break;
53             case 16:
54                 GPIO_PinWrite (1, 43, 1);
55                 break;
56             case 17:
57                 GPIO_PinWrite (1, 44, 1);
58                 break;
59             case 18:
60                 GPIO_PinWrite (1, 45, 1);
61                 break;
62             case 19:
63                 GPIO_PinWrite (1, 46, 1);
64                 break;
65             case 20:
66                 GPIO_PinWrite (1, 47, 1);
67                 break;
68             case 21:
69                 GPIO_PinWrite (1, 48, 1);
70                 break;
71             case 22:
72                 GPIO_PinWrite (1, 49, 1);
73                 break;
74             case 23:
75                 GPIO_PinWrite (1, 50, 1);
76                 break;
77             case 24:
78                 GPIO_PinWrite (1, 51, 1);
79                 break;
80             case 25:
81                 GPIO_PinWrite (1, 52, 1);
82                 break;
83             case 26:
84                 GPIO_PinWrite (1, 53, 1);
85                 break;
86             case 27:
87                 GPIO_PinWrite (1, 54, 1);
88                 break;
89             case 28:
90                 GPIO_PinWrite (1, 55, 1);
91                 break;
92             case 29:
93                 GPIO_PinWrite (1, 56, 1);
94                 break;
95             case 30:
96                 GPIO_PinWrite (1, 57, 1);
97                 break;
98             case 31:
99                 GPIO_PinWrite (1, 58, 1);
100                break;
101            case 32:
102                GPIO_PinWrite (1, 59, 1);
103                break;
104            case 33:
105                GPIO_PinWrite (1, 60, 1);
106                break;
107            case 34:
108                GPIO_PinWrite (1, 61, 1);
109                break;
110            case 35:
111                GPIO_PinWrite (1, 62, 1);
112                break;
113            case 36:
114                GPIO_PinWrite (1, 63, 1);
115                break;
116            case 37:
117                GPIO_PinWrite (1, 64, 1);
118                break;
119            case 38:
120                GPIO_PinWrite (1, 65, 1);
121                break;
122            case 39:
123                GPIO_PinWrite (1, 66, 1);
124                break;
125            case 40:
126                GPIO_PinWrite (1, 67, 1);
127                break;
128            case 41:
129                GPIO_PinWrite (1, 68, 1);
130                break;
131            case 42:
132                GPIO_PinWrite (1, 69, 1);
133                break;
134            case 43:
135                GPIO_PinWrite (1, 70, 1);
136                break;
137            case 44:
138                GPIO_PinWrite (1, 71, 1);
139                break;
140            case 45:
141                GPIO_PinWrite (1, 72, 1);
142                break;
143            case 46:
144                GPIO_PinWrite (1, 73, 1);
145                break;
146            case 47:
147                GPIO_PinWrite (1, 74, 1);
148                break;
149            case 48:
150                GPIO_PinWrite (1, 75, 1);
151                break;
152            case 49:
153                GPIO_PinWrite (1, 76, 1);
154                break;
155            case 50:
156                GPIO_PinWrite (1, 77, 1);
157                break;
158            case 51:
159                GPIO_PinWrite (1, 78, 1);
160                break;
161            case 52:
162                GPIO_PinWrite (1, 79, 1);
163                break;
164            case 53:
165                GPIO_PinWrite (1, 80, 1);
166                break;
167            case 54:
168                GPIO_PinWrite (1, 81, 1);
169                break;
170            case 55:
171                GPIO_PinWrite (1, 82, 1);
172                break;
173            case 56:
174                GPIO_PinWrite (1, 83, 1);
175                break;
176            case 57:
177                GPIO_PinWrite (1, 84, 1);
178                break;
179            case 58:
180                GPIO_PinWrite (1, 85, 1);
181                break;
182            case 59:
183                GPIO_PinWrite (1, 86, 1);
184                break;
185            case 60:
186                GPIO_PinWrite (1, 87, 1);
187                break;
188            case 61:
189                GPIO_PinWrite (1, 88, 1);
190                break;
191            case 62:
192                GPIO_PinWrite (1, 89, 1);
193                break;
194            case 63:
195                GPIO_PinWrite (1, 90, 1);
196                break;
197            case 64:
198                GPIO_PinWrite (1, 91, 1);
199                break;
200            case 65:
201                GPIO_PinWrite (1, 92, 1);
202                break;
203            case 66:
204                GPIO_PinWrite (1, 93, 1);
205                break;
206            case 67:
207                GPIO_PinWrite (1, 94, 1);
208                break;
209            case 68:
210                GPIO_PinWrite (1, 95, 1);
211                break;
212            case 69:
213                GPIO_PinWrite (1, 96, 1);
214                break;
215            case 70:
216                GPIO_PinWrite (1, 97, 1);
217                break;
218            case 71:
219                GPIO_PinWrite (1, 98, 1);
220                break;
221            case 72:
222                GPIO_PinWrite (1, 99, 1);
223                break;
224            case 73:
225                GPIO_PinWrite (1, 100, 1);
226                break;
227            case 74:
228                GPIO_PinWrite (1, 101, 1);
229                break;
230            case 75:
231                GPIO_PinWrite (1, 102, 1);
232                break;
233            case 76:
234                GPIO_PinWrite (1, 103, 1);
235                break;
236            case 77:
237                GPIO_PinWrite (1, 104, 1);
238                break;
239            case 78:
240                GPIO_PinWrite (1, 105, 1);
241                break;
242            case 79:
243                GPIO_PinWrite (1, 106, 1);
244                break;
245            case 80:
246                GPIO_PinWrite (1, 107, 1);
247                break;
248            case 81:
249                GPIO_PinWrite (1, 108, 1);
250                break;
251            case 82:
252                GPIO_PinWrite (1, 109, 1);
253                break;
254            case 83:
255                GPIO_PinWrite (1, 110, 1);
256                break;
257            case 84:
258                GPIO_PinWrite (1, 111, 1);
259                break;
260            case 85:
261                GPIO_PinWrite (1, 112, 1);
262                break;
263            case 86:
264                GPIO_PinWrite (1, 113, 1);
265                break;
266            case 87:
267                GPIO_PinWrite (1, 114, 1);
268                break;
269            case 88:
270                GPIO_PinWrite (1, 115, 1);
271                break;
272            case 89:
273                GPIO_PinWrite (1, 116, 1);
274                break;
275            case 90:
276                GPIO_PinWrite (1, 117, 1);
277                break;
278            case 91:
279                GPIO_PinWrite (1, 118, 1);
280                break;
281            case 92:
282                GPIO_PinWrite (1, 119, 1);
283                break;
284            case 93:
285                GPIO_PinWrite (1, 120, 1);
286                break;
287            case 94:
288                GPIO_PinWrite (1, 121, 1);
289                break;
290            case 95:
291                GPIO_PinWrite (1, 122, 1);
292                break;
293            case 96:
294                GPIO_PinWrite (1, 123, 1);
295                break;
296            case 97:
297                GPIO_PinWrite (1, 124, 1);
298                break;
299            case 98:
300                GPIO_PinWrite (1, 125, 1);
301                break;
302            case 99:
303                GPIO_PinWrite (1, 126, 1);
304                break;
305            case 100:
306                GPIO_PinWrite (1, 127, 1);
307                break;
308            case 101:
309                GPIO_PinWrite (1, 128, 1);
310                break;
311            case 102:
312                GPIO_PinWrite (1, 129, 1);
313                break;
314            case 103:
315                GPIO_PinWrite (1, 130, 1);
316                break;
317            case 104:
318                GPIO_PinWrite (1, 131, 1);
319                break;
320            case 105:
321                GPIO_PinWrite (1, 132, 1);
322                break;
323            case 106:
324                GPIO_PinWrite (1, 133, 1);
325                break;
326            case 107:
327                GPIO_PinWrite (1, 134, 1);
328                break;
329            case 108:
330                GPIO_PinWrite (1, 135, 1);
331                break;
332            case 109:
333                GPIO_PinWrite (1, 136, 1);
334                break;
335            case 110:
336                GPIO_PinWrite (1, 137, 1);
337                break;
338            case 111:
339                GPIO_PinWrite (1, 138, 1);
340                break;
341            case 112:
342                GPIO_PinWrite (1, 139, 1);
343                break;
344            case 113:
345                GPIO_PinWrite (1, 140, 1);
346                break;
347            case 114:
348                GPIO_PinWrite (1, 141, 1);
349                break;
350            case 115:
351                GPIO_PinWrite (1, 142, 1);
352                break;
353            case 116:
354                GPIO_PinWrite (1, 143, 1);
355                break;
356            case 117:
357                GPIO_PinWrite (1, 144, 1);
358                break;
359            case 118:
360                GPIO_PinWrite (1, 145, 1);
361                break;
362            case 119:
363                GPIO_PinWrite (1, 146, 1);
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365            case 120:
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371            case 122:
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374            case 123:
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377            case 124:
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380            case 125:
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382                break;
383            case 126:
384                GPIO_PinWrite (1, 153, 1);
385                break;
386            case 127:
387                GPIO_PinWrite (1, 154, 1);
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390                GPIO_PinWrite (1, 155, 1);
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392            case 129:
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394                break;
395            case 130:
396                GPIO_PinWrite (1, 157, 1);
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398            case 131:
399                GPIO_PinWrite (1, 158, 1);
400                break;
401            case 132:
402                GPIO_PinWrite (1, 159, 1);
403                break;
404            case 133:
405                GPIO_PinWrite (1, 160, 1);
406                break;
407            case 134:
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409                break;
410            case 135:
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413            case 136:
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416            case 137:
417                GPIO_PinWrite (1, 164, 1);
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423                GPIO_PinWrite (1, 166, 1);
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425            case 140:
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427                break;
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431            case 142:
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434            case 143:
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437            case 144:
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439                break;
440            case 145:
441                GPIO_PinWrite (1, 172, 1);
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443            case 146:
444                GPIO_PinWrite (1, 173, 1);
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446            case 147:
447                GPIO_PinWrite (1, 174, 1);
448                break;
449            case 148:
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452            case 149:
453                GPIO_PinWrite (1, 176, 1);
454                break;
455            case 150:
456                GPIO_PinWrite (1, 177, 1);
457                break;
458            case 151:
459                GPIO_PinWrite (1, 178, 1);
460                break;
461            case 152:
462                GPIO_PinWrite (1, 179, 1);
463                break;
464            case 153:
465                GPIO_PinWrite (1, 180, 1);
466                break;
467            case 154:
468                GPIO_PinWrite (1, 181, 1);
469                break;
470            case 155:
471                GPIO_PinWrite (1, 182, 1);
472                break;
473            case 156:
474                GPIO_PinWrite (1, 183, 1);
475                break;
476            case 157:
477                GPIO_PinWrite (1, 184, 1);
478                break;
479            case 158:
480                GPIO_PinWrite (1, 185, 1);
481                break;
482            case 159:
483                GPIO_PinWrite (1, 186, 1);
484                break;
485            case 160:
486                GPIO_PinWrite (1, 187, 1);
487                break;
488            case 161:
489                GPIO_PinWrite (1, 188, 1);
490                break;
491            case 162:
492                GPIO_PinWrite (1, 189, 1);
493                break;
494            case 163:
495                GPIO_PinWrite (1, 190, 1);
496                break;
497            case 164:
498                GPIO_PinWrite (1, 191, 1);
499                break;
500            case 165:
501                GPIO_PinWrite (1, 192, 1);
502                break;
503            case 166:
504                GPIO_PinWrite (1, 193, 1);
505                break;
506            case 167:
507                GPIO_PinWrite (1, 194, 1);
508                break;
509            case 168:
510                GPIO_PinWrite (1, 195, 1);
511                break;
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513                GPIO_PinWrite (1, 196, 1);
514                break;
515            case 170:
516                GPIO_PinWrite (1, 197, 1);
517                break;
518            case 171:
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520                break;
521            case 172:
522                GPIO_PinWrite (1, 199, 1);
523                break;
524            case 173:
525                GPIO_PinWrite (1, 200, 1);
526                break;
527            case 174:
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529                break;
530            case 175:
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533            case 176:
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535                break;
536            case 177:
537                GPIO_PinWrite (1, 204, 1);
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539            case 178:
540                GPIO_PinWrite (1, 205, 1);
541                break;
542            case 179:
543                GPIO_PinWrite (1, 206, 1);
544                break;
545            case 180:
546                GPIO_PinWrite (1, 207, 1);
547                break;
548            case 181:
549                GPIO_PinWrite (1, 208, 1);
550                break;
551            case 182:
552                GPIO_PinWrite (1, 209, 1);
553                break;
554            case 183:
555                GPIO_PinWrite (1, 210, 1);
556                break;
557            case 184:
558                GPIO_PinWrite (1, 211, 1);
559                break;
560            case 185:
561                GPIO_PinWrite (1, 212, 1);
562                break;
563            case 186:
564                GPIO_PinWrite (1, 213, 1);
565                break;
566            case 187:
567                GPIO_PinWrite (1, 214, 1);
568                break;
569            case 188:
570                GPIO_PinWrite (1, 215, 1);
571                break;
572            case 189:
573                GPIO_PinWrite (1, 216, 1);
574                break;
575            case 190:
576                GPIO_PinWrite (1, 217, 1);
577                break;
578            case 191:
579                GPIO_PinWrite (1, 218, 1);
580                break;
581            case 192:
582                GPIO_PinWrite (1, 219, 1);
583                break;
584            case 193:
585                GPIO_PinWrite (1, 220, 1);
586                break;
587            case 194:
588                GPIO_PinWrite (1, 221, 1);
589                break;
590            case 195:
591                GPIO_PinWrite (1, 222, 1);
592                break;
593            case 196:
594                GPIO_PinWrite (1, 223, 1);
595                break;
596            case 197:
597                GPIO_PinWrite (1, 224, 1);
598                break;
599            case 198:
600                GPIO_PinWrite (1, 225, 1);
601                break;
602            case 199:
603                GPIO_PinWrite (1, 226, 1);
604                break;
605            case 200:
606                GPIO_PinWrite (1, 227, 1);
607                break;
608            case 201:
609                GPIO_PinWrite (1, 228, 1);
610                break;
611            case 202:
612                GPIO_PinWrite (1, 229, 1);
613                break;
614            case 203:
615                GPIO_PinWrite (1, 230, 1);
616                break;
617            case 204:
618                GPIO_PinWrite (1, 231, 1);
619                break;
620            case 205:
621                GPIO_PinWrite (1, 232, 1);
622                break;
623            case 206:
624                GPIO_PinWrite (1, 233, 1);
625                break;
626            case 207:
627                GPIO_PinWrite (1, 234, 1);
628                break;
629            case 208:
630                GPIO_PinWrite (1, 235, 1);
631                break;
632            case 209:
633                GPIO_PinWrite (1, 236, 1);
634                break;
635            case 210:
636                GPIO_PinWrite (1, 237, 1);
637                break;
638            case 211:
639                GPIO_PinWrite (1, 238, 1);
640                break;
641            case 212:
642                GPIO_PinWrite (1, 239, 1);
643                break;
644            case 213:
645                GPIO_PinWrite (1, 240, 1);
646                break;
647            case 214:
648                GPIO_PinWrite (1, 241, 1);
649                break;
650            case 215:
651                GPIO_PinWrite (1, 242, 1);
652                break;
653            case 216:
654                GPIO_PinWrite (1, 243, 1);
655                break;
656            case 217:
657                GPIO_PinWrite (1, 244, 1);
658                break;
659            case 218:
660                GPIO_PinWrite (1, 245, 1);
661                break;
662            case 219:
663                GPIO_PinWrite (1, 246, 1);
664                break;
665            case 220:
666                GPIO_PinWrite (1, 247, 1);
667                break;
668            case 221:
669                GPIO_PinWrite (1, 248, 1);
670                break;
671            case 222:
672                GPIO_PinWrite (1, 249, 1);
673                break;
674            case 223:
675                GPIO_PinWrite (1, 250, 1);
676                break;
677            case 224:
678                GPIO_PinWrite (1, 251, 1);
679                break;
680            case 225:
681                GPIO_PinWrite (1, 252, 1);
682                break;
683            case 226:
684                GPIO_PinWrite (1, 253, 1);
685                break;
686            case 227:
687                GPIO_PinWrite (1, 254, 1);
688                break;
689            case 228:
690                GPIO_PinWrite (1, 255, 1);
691                break;
692            case 229:
693                GPIO_PinWrite (1, 256, 1);
694                break;
695            case 230:
696                GPIO_PinWrite (1, 257, 1);
697                break;
698            case 231:
699                GPIO_PinWrite (1, 258, 1);
700                break;
701            case 232:
702                GPIO_PinWrite (1, 259, 1);
703                break;
704            case 233:
705                GPIO_PinWrite (1, 260, 1);
706                break;
707            case 234:
708                GPIO_PinWrite (1, 261, 1);
709                break;
710            case 235:
711                GPIO_PinWrite (1, 262, 1);
712                break;
713            case 236:
714                GPIO_PinWrite (1, 263, 1);
715                break;
716            case 237:
717                GPIO_PinWrite (1, 264, 1);
718                break;
719            case 238:
720                GPIO_PinWrite (1, 265, 1);
721                break;
722            case 239:
723                GPIO_PinWrite (1, 266, 1);
724                break;
725            case 240:
726                GPIO_PinWrite (1, 267, 1);
727                break;
728            case 241:
729                GPIO_PinWrite (1, 268, 1);
730                break;
731            case 242:
732                GPIO_PinWrite (1, 269, 1);
733                break;
734            case 243:
735                GPIO_PinWrite (1, 270, 1);
736                break;
737            case 244:
738                GPIO_PinWrite (1, 271, 1);
739                break;
740            case 245:
741                GPIO_PinWrite (1, 272, 1);
742                break;
743            case 246:
744                GPIO_PinWrite (1, 273, 1);
745                break;
746            case 247:
747                GPIO_PinWrite (1, 274, 1);
748                break;
749            case 248:
750                GPIO_PinWrite (1, 275, 1);
751                break;
752            case 249:
753                GPIO_PinWrite (1, 276, 1);
754                break;
755            case 250:
756                GPIO_PinWrite (1, 277, 1);
757                break;
758            case 251:
759                GPIO_PinWrite (1, 278, 1);
760                break;
761            case 252:
762                GPIO_PinWrite (1, 279, 1);
763                break;
764            case 253:
765                GPIO_PinWrite (1, 280, 1);
766                break;
767            case 254:
768                GPIO_PinWrite (1, 281, 1);
769                break;
770            case 255:
771                GPIO_PinWrite (1, 282, 1);
772                break;
773            case 256:
774                GPIO_PinWrite (1, 283, 1);
775                break;
776            case 257:
777                GPIO_PinWrite (1, 284, 1);
778                break;
779            case 258:
780                GPIO_PinWrite (1, 285, 1);
781                break;
782            case 259:
783                GPIO_PinWrite (1, 286, 1);
784                break;
785            case 260:
786                GPIO_PinWrite (1, 287, 1);
787                break;
788            case 261:
789                GPIO_PinWrite (1, 288, 1);
790                break;
791            case 262:
792                GPIO_PinWrite (1, 289, 1);
793                break;
794            case 263:
795                GPIO_PinWrite (1, 290, 1);
796                break;
797            case 264:
798                GPIO_PinWrite (1, 291, 1);
799                break;
800            case 265:
801                GPIO_PinWrite (1, 292, 1);
802                break;
803            case 266:
804                GPIO_PinWrite (1, 293, 1);
805                break;
806            case 267:
807                GPIO_PinWrite (1, 294, 1);
808                break;
809            case 268:
810                GPIO_PinWrite (1, 295, 1);
811                break;
812            case 269:
813                GPIO_PinWrite (1, 296, 1);
814                break;
815            case 270:
816                GPIO_PinWrite (1, 297, 1);
817                break;
818            case 271:
819                GPIO_PinWrite (1, 298, 1);
820                break;
821            case 272:
822                GPIO_PinWrite (1, 299, 1);
823                break;
824            case 273:
825                GPIO_PinWrite (1, 300, 1);
826                break;
827            case 274:
828                GPIO_PinWrite (1, 301, 1);
829                break;
830            case 275:
831                GPIO_PinWrite (1, 302, 1);
832                break;
833            case 276:
834                GPIO_PinWrite (1, 303, 1);
835                break;
836            case 277:
837                GPIO_PinWrite (1, 304, 1);
838                break;
839            case 278:
840                GPIO_PinWrite (1, 305, 1);
841                break;
842            case 279:
843                GPIO_PinWrite (1, 306, 1);
844                break;
845            case 280:
846                GPIO_PinWrite (1, 307, 1);
847                break;
848            case 281:
849                GPIO_PinWrite (1, 308, 1);
850                break;
851            case 282:
852                GPIO_PinWrite (1, 309, 1);
853                break;
854            case 283:
855                GPIO_PinWrite (1, 310, 1);
856                break;
857            case 284:
858                GPIO_PinWrite (1, 311, 1);
859                break;
860            case 285:
861                GPIO_PinWrite (1, 312, 1);
862                break;
863            case 286:
864                GPIO_PinWrite (1, 313, 1);
865                break;
866            case 287:
867                GPIO_PinWrite (1, 314, 1);
868                break;
869            case 288:
870                GPIO_PinWrite (1, 315, 1);
871                break;
872            case 289:
873                GPIO_PinWrite (1, 316, 1);
874                break;
875            case 290:
876                GPIO_PinWrite (1, 317, 1);
877                break;
878            case 291:
879                GPIO_PinWrite (1, 318, 1);
880                break;
881            case 292:
882                GPIO_PinWrite (1, 319, 1);
883                break;
884            case 293:
885                GPIO_PinWrite (1, 320, 1);
886                break;
887            case 294:
888                GPIO_PinWrite (1, 321, 1);
889                break;
890            case 295:
891                GPIO_PinWrite (1, 322, 1);
892                break;
893            case 296:
894                GPIO_PinWrite (1, 323, 1);
895                break;
896            case 297:
897                GPIO_PinWrite (1, 324, 1);
898                break;
899            case 298:
900                GPIO_PinWrite (1, 325, 1);
901                break;
902            case 299:
903                GPIO_PinWrite (1, 326, 1);
904                break;
905            case 300:
906                GPIO_PinWrite (1, 327, 1);
907                break;
908            case 301:
909                GPIO_PinWrite (1, 328, 1);
910                break;
911            case 302:
912                GPIO_PinWrite (1, 329, 1);
913                break;
914            case 303:
915                GPIO_PinWrite (1, 330, 1);
916                break;
917            case 304:
918                GPIO_PinWrite (1, 331, 1);
919                break;
920            case 305:
921                GPIO_PinWrite (1, 332, 1);
922                break;
923            case 306:
924                GPIO_PinWrite (1, 333, 1);
925                break;
926            case 307:
927                GPIO_PinWrite (1, 334, 1);
928                break;
929            case 308:
930                GPIO_PinWrite (1, 335, 1);
931                break;
932            case 309:
933                GPIO_PinWrite (1, 336, 1);
934                break;
935            case 310:
936                GPIO_PinWrite (1, 337, 1);
937                break;
938            case 311:
939                GPIO_PinWrite (1, 338, 1);
940                break;
941            case 312:
942                GPIO_PinWrite (1, 339, 1);
943                break;
944            case 313:
945                GPIO_PinWrite (1, 340, 1);
946                break;
947            case 314:
948                GPIO_PinWrite (1, 341, 1);
949                break;
950            case 315:
951                GPIO_PinWrite (1, 342, 1);
952                break;
953            case 316:
954                GPIO_PinWrite (1, 343, 1);
955                break;
956            case 317:
957                GPIO_PinWrite (1, 344, 1);
958                break;
959            case 318:
960                GPIO_PinWrite (1, 345, 1);
961                break;
962            case 319:
963                GPIO_PinWrite (1, 346, 1);
964                break;
965            case 320:
966                GPIO_PinWrite (1, 347, 1);
967                break;
968            case 321:
969                GPIO_PinWrite (1, 348, 1);
970                break;
971            case 322:
972                GPIO_PinWrite (1, 349, 1);
973                break;
974            case 323:
975                GPIO_PinWrite (1, 350, 1);
976                break;
977            case 324:
978                GPIO_PinWrite (1, 351, 1);
979                break;
980            case 325:
981                GPIO_PinWrite (1, 352, 1);
982                break;
983            case 326:
984                GPIO_PinWrite (1, 353, 1);
985                break;
986            case 327:
987                GPIO_PinWrite (1, 354, 1);
988                break;
989            case 328:
990                GPIO_PinWrite (1, 355, 1);
991                break;
992            case 329:
993                GPIO_PinWrite (1, 356, 1);
994                break;
995            case 330:
996                GPIO_PinWrite (1, 357, 1);
997                break;
998            case 331:
999                GPIO_PinWrite (1, 358, 1);
1000               break;
1001           case 332:
1002               GPIO_PinWrite (1, 359, 1);
1003               break;
1004           case 33
```

5. Button



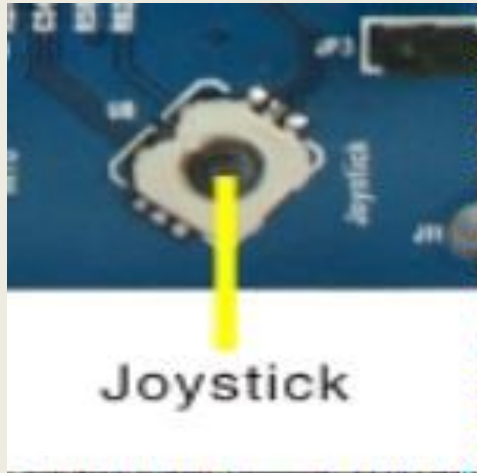
There are 2 ways:

1. Reading the GPIO input: P2.10

2. Using the library: *Buttons_MBC1700.c*

```
87 /**  
88  \fn      uint32_t Buttons_GetState (void)  
89  \brief    Get buttons state  
90  \returns  Buttons state  
91  */  
92  uint32_t Buttons_GetState (void) {  
93      uint32_t val;  
94  
95      val = 0;  
96      if (!(GPIO_PinRead (BUTTON_PIN[0].Portnum, BUTTON_PIN[0].Pinnum))) val |= BUTTON_INT0;  
97  
98      return val;  
99  }
```


6. Joystick



There are 2 ways:

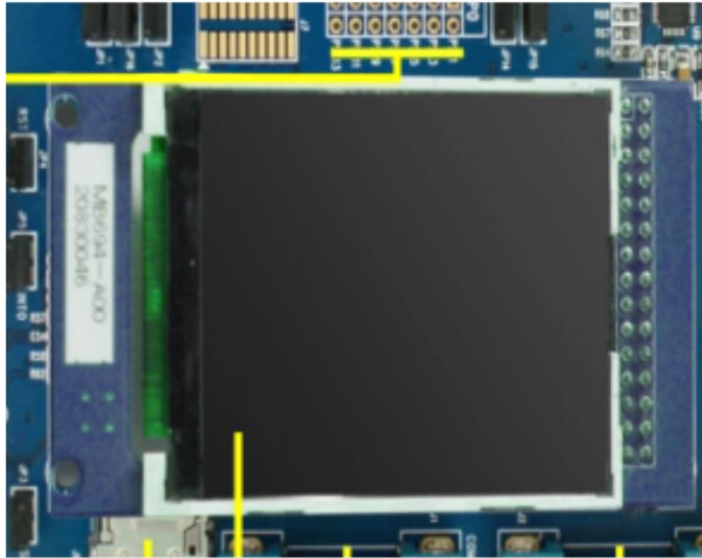
- Reading the GPIO input:

P1.20 , P1.23 , P1.24 , P1.25, P1.26

- Using the library: *Board_Joystick.h*

```
main.c Board_Joystick.h
36
37 #include <stdint.h>
38
39 #define JOYSTICK_LEFT           (1 << 0)  /// Defines the Left-button
40 #define JOYSTICK_RIGHT         (1 << 1)  /// Defines the Right-button
41 #define JOYSTICK_CENTER        (1 << 2)  /// Defines the Center-button
42 #define JOYSTICK_UP            (1 << 3)  /// Defines the Up-button
43 #define JOYSTICK_DOWN          (1 << 4)  /// Defines the Down-button
44
45 /**
```

7. LCD



2.4 inches TFT LCD (240*320)

- Basing **GLCD_MCB1700.c** to write Code

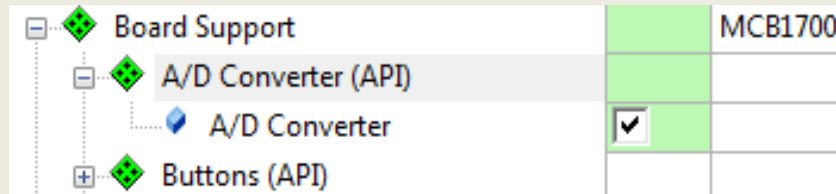
```
main.c  GLCD_MCB1700.c
1  /*
2  * Name:      GLCD_MCB1700.c
3  * Purpose:   Graphic LCD interface (240x320 pixels) for Graphic LCD with
4  *           SPI interface for MCB1700 evaluation board
5  * Rev.:     1.0.1
6  *
7  */
8  /* Copyright (c) 2013 - 2014 ARM LIMITED
```

- Configuring SPI as:

<input checked="" type="checkbox"/> SSP1 (Synchronous Serial Port 1) [Driver_SPI1]	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Pin Configuration	
SSP1_SSEL	P0_6
SSP1_SCK	P0_7
SSP1_MISO	P0_8
SSP1_MOSI	P0_9

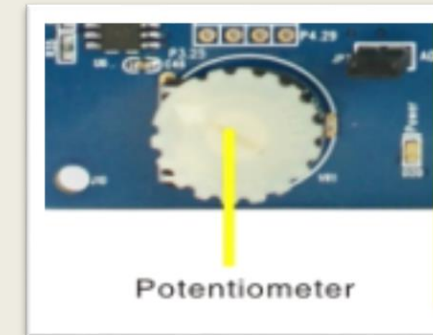
8. ADC

- Reading the signal from potentiometer



- Basing library `ADC_MCB1700.c`

```
main.c | ADC_MCB1700.c
1 /*
2  * Name:    ADC_MCB1700.c
3  * Purpose: A/D Converter interface for MCB1700 evaluation board
4  * Rev.:    1.00
5  *
6  */
7 /* Copyright (c) 2013 - 2014 ARM LIMITED
8  */
```



The result

Thanks for your reading

❖ Please, linking to the Instruction section to do step by step on MDK. (The project folder was attached)