Multi-Robot Localization Update

Caleb Lu

Outline

- Goals from Last Meeting
- Goals Achieved
- Issues
- Goals for Next Week
- Priority List
- Questions

Goals from Last Meeting

- Get Communication between BBB and the USB interface board
- Write C code to send and receive messages
 - Properly parse messages to interpret message
 - Send and receive specific message to a beacon

Goals Achieved

Started Writing c code to send and receive commands/bytes

```
#include <stdio.h>
#include <unistd.h>
#include <fcntl.h>
int main() {
    int tx byte[8] = \{0x7E, 0x00, 0x04, 0x08, 0x01, 0x64, 0x62, 0x30\};
    int rx byte[100]={0};
    int *buff, *rx;
    int fd = open("/dev/pts/0", O RDWR);
    int i;
    rx = rx byte;
    buff = tx byte;
    write(fd, &buff, 8);
    ssize t size = read(fd, &rx, 7);
        for (i = 1; i < size of (rx); i++)
                printf("Read byte %X\n", rx[i]);
    return 0;
```

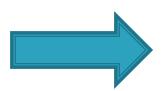
Issues/Pictures

```
debian@beaglebone:~/localization$ ./a.out
t%
Read byte 1B6FD
Read byte 0
Read byte A3FB0000
Read byte 3341B6FB
debian@beaglebone:~/localization$ nano app com.c
debian@beaglebone:~/localization$ gcc app com.c
debian@beaglebone:~/localization$ ./a.out
tu≣
Read byte 1B6FE
Read byte 0
Read byte C3FB0000
Read byte 3343B6FC
debian@beaglebone:~/localization$ nano app com.c
debian@beaglebone:~/localization$ gcc app com.c
debian@beaglebone:~/localization$ ./a.out
t#PuTTY
Read byte 54547550
Read byte 54547554
Read byte 54547558
Read byte 5454755C
debian@beaglebone:~/localization$ ./a.out
t%e
Read byte BED2240A
Read byte BED2240E
Read byte BED22412
Read byte BED22416
debian@beaglebone:~/localization$ ./a.out
tΦ
Read byte BE93D40A
Read byte BE93D40E
Read byte BE93D412
Read byte BE93D416
debian@beaglebone:~/localization$ ./a.out
```

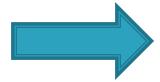
```
debian@beaglebone:~/localization$ ./a.out
t対 t対 t対 t対
Read byte BEAF
Read byte 1F180000
Read byte B6F5
Read byte 4B180000
debian@beaglebone:~/localization$ tty
/dev/pts/0
debian@beaglebone:~/localization$ nano app com.c
debian@beaglebone:~/localization$ ./a.out
tu=tu=tu=tu=
Read byte BEF8
Read byte 5F180000
Read byte B6F3
Read byte 8B180000
debian@beaglebone:~/localization$ gcc app com.c
debian@beaglebone:~/localization$ ./a.out
t_st_st_st_s
Read byte BED8
Read byte 6F180000
Read byte B6FC
Read byte 9B180000
debian@beaglebone:~/localization$ nano app com.c
debian@beaglebone:~/localization$ gcc app com.c
debian@beaglebone:~/localization$ ./a.out
Read byte BF180000
Read byte B6FD
Read byte EB180000
debian@beaglebone:~/localization$ nano app com.c
debian@beaglebone:~/localization$ gcc app com.c
debian@beaglebone:~/localization$ ./a.out
tE==
Read byte CF180000
Read byte B6F9
Read byte FB180000
```

Issues/Pictures

Connected to interface board



Disconnected to interface board



Connected to interface board



debian@beaglebone:~/localization\$	tty
/dev/pts/0	
debian@beaglebone:~/localization\$	tty
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debian@beaglebone:~/localization\$	tty
/dev/pts/0	
debian@beaglebone:~/localization\$	tty

Goals for Next Week

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- Write C code to :
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Questions?