

# Battleship Bots

As you know the aim of this assignment is  
to sink as many of your fellow students  
battleships as possible

You are provided with details of the ships that are near you by the server

```
int myX;  
int myY;  
int myHealth;  
int myFlag;
```



About your  
ship

```
int number_of_ships;  
int shipX[MAX_SHIPS];  
int shipY[MAX_SHIPS];  
int shipHealth[MAX_SHIPS];  
int shipFlag[MAX_SHIPS];
```



About all ships  
(index 0 is  
always your  
ship)

**number\_of\_ships** tells you how many ships are visible to you

**shipX[]** and **shipY[]** tell you the locations of the ships within your visible range

**shipHealth[]** tell you the health of the ships within your visible range

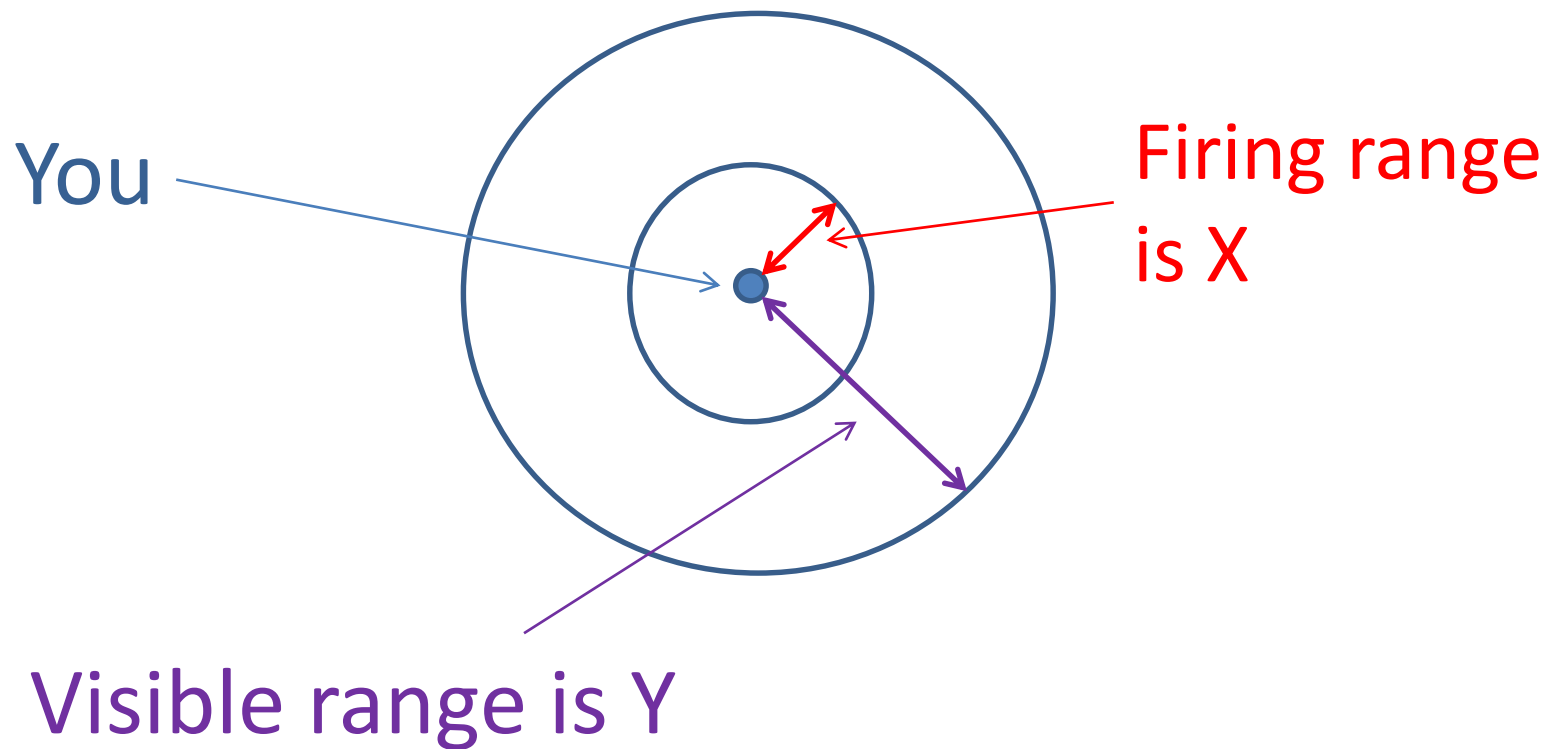
You are always ship 0

There is always at least one ship (yours)

What can you do with shipX[], shipY[]  
and shipHealth[]?

How can you make best use of this  
information?

Some relevant numbers...



You can see ships before you can hit them

The default code in the battleship bot fires at ship[1] which is just the first ship in the list...

...it doesn't even check if ship[1] is in range.

The order in which the other ships are reported to you is random. So ship[1] may be a different ship each clock tick.

You need to think up good tactics to try

You can ask your tutors, PAL leaders and  
Dave at espressoProgramming for advice  
on how to program your tactics

Remember that your enemies  
tactics are continuously  
evolving and so your will also  
need to evolve