Messaging Functions

```
void updateShot(int row, int column, int delete)
```

Update shot position:

This function tells the front-end to update the position of the cannonball. This function should be used to animate the cannonball when a shot is triggered.

Inputs:

- int row: row index of the new cannonball position
- int column: column index of the new cannonball position
- int delete: determines whether previously drawn cannonballs should be deleted. When set to 0, previous cannonballs will remain on screen, which can be useful for debugging. **Your final submission should set delete to 1 for all calls to updateShot(), i.e. there should only be at most one cannonball on screen.**

```
void colorTile(int row, int column, int strength)
```

Change tile color (strength):

This function tells the front-end to change the strength and color of the tile found at a given location. If no object is found at the location provided, nothing happens. This function should be used to animate the effects of the collisions your game engine detects.

Inputs:

- int row: row index of the tile to be modified
- int column: column index of the tile to be modified
- int strength: the new strength value of the tile. This parameter tells the front-end what to set the strength of the tile found at (row, column); when the strength is changed, the color will change as well.

```
void deleteTile(int row, int column)
```

Delete tile:

This function tells the front-end to delete the tile found at a given location. If no object is found at the location provided, nothing happens. This function should be used to animate the effects of the collisions your game engine detects.

Inputs:

- int row: row index of the tile to be modified
- int column: column index of the tile to be modified

```
void paaUpdate(int power, int angle)
```

Update power and angle:

This function tells the front-end to draw/re-draw an arrow representing the power and angle that the user has entered with the pushbuttons. This function should be used to show a graphical representation of the shot parameters displayed on the LCD.

Inputs:

- int power: the user's selected power. The length of the arrow drawn is based on the power parameter.
- int angle: the user's selected angle

```
void hint(int power, int angle, int row, int column)
```

Submit hint:

This function submits a shot hint to the front-end. If a user sets the angle to the specified power and angle and takes a shot, the shot should pass through (hit) the specified (row, column) pair.

When a hint is submitted, the front-end will display the hint, as well as the results of two accuracy checks. In the hint panel you will find two columns labelled L and S (location and shot accuracy). A picture of a monkey in the L column means the location submitted with hint() is the location of the left-most monkey. A 'B' in the L column means the location submitted with hint() is the location of the branch joint that supports the left-most monkey. An X mark means the location submitted is not the location of the left-most monkey or the branch joint that supports it. A checkmark in the S column means the power and angle submitted specify a shot that would hit location submitted, while an X mark means the power and angle submitted specify a shot that would not hit the provided location. A hint can receive a check for shot accuracy even if the location is not accurate. That is, if the power and angle would result in a hit for the provided location, the shot is marked as accurate, even if hitting the provided location would not destroy the left-most monkey (location marked as inaccurate).

You should submit one hint that either targets the left-most monkey directly or the branch tile that supports the entire branch that the left-most monkey rests on.

Inputs:

- int power: the shot power required to hit the location given by (row, column)
- int angle: the shot angle required to hit the location given by (row, column)
- int row: the row index of the tile that your power/angle hint is targeting. This should be the row index of a monkey.
- int column: the column index of the tile that your power/angle hint is targeting. This should be the row index of a monkey.