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Multi-robot task allocation in uncertain environments

I plan to do multi-task allocation for environment monitoring which is one robot that might have two or three kids that will explore and come back to robot, and it stores the discovered area in its memory. It is like the example you shared in class with is, where the robots were able to find the area inside after searching and reporting back to the main robot while maintaining constraints like the child must be 10 blocks within the parent or something along those lines.

- Might need to use Java Agent Development Framework that provides a platform for developing multi-agent systems. This allows the agents created to communicate with each other.
- Another is Robot Operating System, and this is a set of libraries that can be used to develop robot applications. This provides a platform for implementing communication between robots and other sensors which is useful for multi-robot allocation algorithms.

```java
package jadeapplication;

import jade.core.AID;
import jade.core.Agent;

public class NewAgent extends Agent{

    @Override
    protected void setup(){
        System.out.println("Hello. I am the first JADE agent created in this cou
rse.");

        this.addBehaviour(new MyBehavior());
    }

}
```

- JavaFX GUI will be used to display robots exploring the environment. https://www.geeksforgeeks.org/javafx-tutorial/