Titel: Is your dijk kapot? Who you gonna call? Ons dus! (op het deuntje van ghostbusters)

**Introduction:**

Even though efforts are made to mitigate green house gasses the increase of the sea level seems to be inevitable [SOURCE]. For the Dutch this is great news since our reputation on building embankments is unparalleled. However, to stay in the race we need stay on top of our game. Although the TU delft builds beautiful embankments they take a lot of time and need heavy machinery to build. Therefore, this approach is not suitable when the need for protection is acute. We propose that instead of using machinery that takes weeks to transport, we use a swarm of relatively small robots that works together to build an embankment. Due to their limited size they can be flown in right before a flood is about to happen, potentially saving lives and billions of euros on damages.

We are inspired by the Termes project by Werfel et al. in which they have a team of robots that work together to build a structure that resembles a termite mound and intend to translate their work into the BDI model and apply it to embankments.

**Beliefs:**

**Desires:**

* Explore the Area
* Build an embankment
* Drink beer with its fellow workers when embankment is done

**Intentions:**

**Possible extensions on the project:**

* Implement battery life
* Dig dirt instead of using material from depot

**Sources:**

<https://www.seas.harvard.edu/news/2014/02/robotic-construction-crew-needs-no-foreman>

<http://www.eecs.harvard.edu/ssr/projects/cons/termes.html>

actual paper:

Werfel, J. Petersen, W. Nagpal, R. 2011. Distributed Multi-Robot Algorithms for the Termes 3d collective construction system. Modular Robotics workshop, Intl. Conference on Robots and Systems (IROS)

<http://www.eecs.harvard.edu/ssr/papers/iros11wksp-werfel.pdf>

thesis:

<http://www.eecs.harvard.edu/ssr/papers/phd14-petersen.pdf>