

Plan:

1. Search and find relevant papers that describe "the task" in more detail
2. Download Webots
3. Build EPM environment
4. Use e-puck robot
5. Recurrent Artificial Neural Network (ANN):
  - 5.1 Input: Sensor reading (IR sensors, floor sensors, camera)
  - 5.2 Hidden layer: Choose number of hidden layer nodes by: input nodes + output nodes
  - 5.3 Output: 2 nodes to give >> speed values << of >> left wheel << and >> right wheel <<
6. ANN parameters:
  - 6.1 Evolve a) weights or b) weights and activation function
  - 6.2 Evolve above parameters using Genetic Algorithm (GA)
7. GA design:
  - 7.1 genotype and fitness function
  - 7.2 parameters: a) crossover b) mutation c) initial population size d) selection criteria (eg roulette wheel selection) e) max number of generations
8. Check back to pdf, edit to do list

9. Demo: 16th March (week 10)

9. Report: due week 12