

## FINAL PROJECT AI 2019

The final project consists in the implementation of a **SAT based planner** that leverages the SAT solver you implemented during the first half of the course.

Your planner will have to:

- 1) parse problems modeled in **PDDL**
- 2) build a **propositional formula encoding** the planning problem and
- 3) feed it to the **SAT solver**.

On top of this, you will have to implement a simple horizon-allocation strategy that will allow you to compute encode formulas for increasing horizons.

We will provide you with some code so you don't have to start implementing from scratch.

There are some basic requirements your planner must meet to be evaluated.

Requirements:

- Parsing is already taken care of by the code we will give you, so you don't need to worry about it.
- Your code **MUST** run without throwing unhandled exceptions, seg faults etc. It's python code, so there's a good chance everything will work fine. But if it does not, you will lose points.
- You will have to test your code on 4 domains, each coming with 5 instances. Ideally, being able to run your planner on each domain will give you approx 5% of the final grade.

Additional information:

- the project is worth 20% of the final grade (the other 80% will be decided with the final exam);
- you can work alone or in pairs if you wish (no more than 2 though);
- 3 practical sessions have been scheduled to help you with the implementation;