Simulation and modelling

Robotic Arm

**Group 1: André Håland, Erlend Helgerud**

**Problem:**

**The problem is mainly based in the fact that a lot of tasks done today are done manually because of the demand for precision. An example is the cleaning of salmon-filets, which needs to be done with high precision in order to negate losses.**

**Idea:**

**Robotic arm operating in 3 axes, x, y and z which receives input from a camera and acts accordingly.**

**Description:**

**The robot’s area of action is defined by a plane which is monitored by a camera. If the camera detects a red dot, the robot should move in order to touch the point at which is given as input from the camera.**

**Requirements:**

**The robotic arm shall:**

* **Move in three axes (x, y, z).**
* **Have an area of operation specified by a plane (50cm x 50cm)**
* **Receive Cartesian coordinates from the camera.**
  + **Touch the spot given by the received coordinates.**
  + **Be able to move to the reference/reset position after action.**
* **Give output which allows the measurement of speed.**