# Smart Garbage Cans

* The garbage cans should notify how full
* The garbage cans should notify if will get full
* The garbage can is able to estimate when it will get full
* The trash can analysis the use across time.
* The garbage can is solar powered
* The garbage cans should be connected to the network.
* The garbage collectors are autonomous
* Each trashcan knows which house to visit every morning.
* It identifies if the user threw the wrong garbage
* It opens the lid automatically when the user approacghes
* The priority for collection is:
  + Bio waste
  + Other
  + Paper
  + Plastic
  + Glass
* At the intersection pedestrians have the priority
* Cars and other transportation means have a specific crossing schedule and it gets overwritten only in case of an emergency, which is promptly shared to all vehicles. Emergency have ther follow categories:
  + Ambulance or other safety related vehicles
  + Police
  + Cars manually driven
* Vehicles that are manually driven in case of an emergency have shared their status to the police.
* Traffic lights are regulated according to a schedule. This schedule is defined in a state machine. Furthermore, this normal, daily schedule changes only in case of emergency. See above.
* Garbage cans and other maintenance vehicles are expected early in the morning, i.e., between 5-6 in the morning. Peak hours are expected around 8-9, 12-13 and 16-18.
* The rules to cross follow the already existing, local traffic rules. In this case, we have the following rules to care about for the traffic light.
  + red light no
  + yellow light only if you can’t stop safely
  + green go
* Each lane has a corresponding light and that is the one who needs to be followed.
* Trams and buses have the priority.
* The priority is then followed:
  + A - safety vehicles -> ambulances, further und Police
  + B - Öffentlich Verkehrsmitteln
  + C - Normalen Wagen und Autos
* Normalerweise folgen Fußgänger die gleichen Regeln als normalen Wagen, aber Autos müssen darauf warten, dass sie aus dem Weg sind.