**Discovering problem, researching problem, brainstorming & choosing a solution**

Summary: John and Mike are discussing their project ideas at school. Marc is in space on a distant planet.

1. John: Hey Mike.
2. Mike: Hey John. So what are we going to do for our robotics project?
3. John: People keep stealing my stuff, I think we should build a safe.
4. Mike: I was thinking of a clock what did Marc want to do?
5. John: I think he said something about a robotic arm.
6. Mike: I don’t like the robotic arm idea. I don’t think we have the materials to do that. I like the safe idea though.
7. John: Yeah. Okay, I’ll go get Marc.

Summary: John has gone into space to get Marc. When he arrives he will tell marc the basic ideas involving the project. He will be brought back to discuss the project in more depth with Mike.

1. John: Hey Marc.
2. Marc: Hey John. What did mike and you choose for our project?
3. John: We’ve chosen the safe.
4. Marc: Okay. What’s the plan?
5. John: We start building the body of the safe. Then we attach the motors on the inside.
6. Marc: Then what?
7. John: When you block off the light sensor the motors open the door.
8. Marc: What happens if they just pry it open?
9. John: I hadn’t thought of that. Let’s head back to earth and meet up with Mike. You can talk to him on a security system.

Summary: Marc has returned to earth to talk to marc they are meeting at their office.

1. Marc: Hey.
2. Mike: Did John tell you what’s going on with the security box?
3. Marc: Yeah. So, do you have any ideas?
4. Mike: Yeah. We could use touch sensors.
5. Marc: Yeah. I like it.
6. Mike: Anything Else?
7. Marc: Oh. Um… Sonics sensors.
8. Mike: Yeah. So I’ll get started on the program.
9. Marc: Okay. I’ll get started working on the bot.
10. Mike: Okay I’ll help too.

**Prototyping:**

Summary: John and Mike are in the jungle they discuss what is wrong with the program.

1. John: So how did the bot go Mike? I heard that you were having problems with it.
2. Mike: Not too well, John. It blew up.
3. John: What’s wrong with it?
4. Mike: It’s the program.
5. John: What’s wrong with the program? Was it hacked by ultra-nationalist polar bears?
6. Mike: The motor moves too quickly breaking the door off and the sonic sensor I not hooked to the program. I’m not sure if we can get out of here man, the bot is too easy to breach.
7. John: Let’s get back to the base and fix it. Maybe Marc can help us if he is not asleep.
8. Mike: As they sail off into the-
9. John: What did you say Kernel?
10. Mike: Oh. Nothing.

**What we learned and what we would do different:**

Summary: Marc and John are in the office and are discussing what they learned. John then finds Mike.

1. John: So Marc, What did you learn while working on this project?
2. Marc: I learned to use Go!Animate, Camstudio, and Windows Movie Maker. What did you learn John?
3. John: I learned to use those same programs. I also learned that making a security box is difficult.
4. Marc: What did you think Mike learned?
5. John: I don't know. I'll ask him.
6. John: Hey Mike.
7. Mike: Hey John.
8. John: Marc and I were wondering what you learned during this project.
9. Mike: I learned how to use windows movie maker as well as Robolab program.
10. John: So did we.
11. Mike: So this is where the pictures start rolling right?
12. John: SHH! We’re not supposed to know that.
13. Mike: Oh right.