



Loti-Bot (IT10415)

Maria Temel, Computing and E-learning Consultant at Bolton Schools ICT has tested and trialled Loti-Bot with a group of children and has shared her thoughts about the new robot and suggestions for ways to use Loti within the classroom.



“The children were absolutely amazing and while watching them with the robots, I realised that by integrating Loti-Bot into primary classrooms we can spark curiosity, ignite creativity, and nurture problem-solving skills, equipping them with the mindset needed to thrive in an ever-changing digital world. Isn't that the whole point of our National Curriculum? Deep thinking for a Tuesday morning I can tell you.” Maria Temel

So, here are our **findings and testimonial:**

We would like to take a moment to express our deep appreciation for the wonderful experience we had with the new Loti-Bot robot. It has been an **exceptional teaching and learning tool that has had a positive impact on our classroom's delivery of the Computing curriculum.**

- Loti-Bot's charming personality has captivated all the children, and they have thoroughly enjoyed discovering its unique features, such as the two side light bars and reactive headlights.
- Before discovering Loti-Bot, I struggled to find an effective way to teach my primary school children the practical side of coding and demonstrate the importance of programming. I experimented with different ideas like Microbits and Raspberry Pi, but they did not quite meet my expectations. **Loti-Bot, on the other hand, incorporates all the essential elements I wanted to deliver - an easy-to-use, responsive robot that makes learning a fun and exciting journey.**

- The moment we began using Loti-Bot in the classroom, we were amazed at its smooth movement, which allowed us to draw accurate shapes and turn through precise angles. This feature opens up endless possibilities for shape and space Maths activities, and the children agree that it is much better than drawing 2D shapes in their books!
- Loti-Bot is built to the highest quality and designed to withstand the challenges of a primary school classroom. It comes with a **programming app that is both familiar to children and visually impactful**, enabling them to simulate and quickly make changes to the programs they build. The app is also an excellent platform for the children to transfer their programming skills and broaden their learning.

In summary, we highly recommend Loti-Bot to anyone seeking an engaging and effective solution for teaching the practical aspects of the Computing National curriculum while providing unparalleled opportunities to develop computer science and critical thinking skills.

What we loved about Loti-Bot:



- The name! The children fell in love with her instantly!
- Loti feels really robust
- Shielded wheels means there is less chance of them breaking
- Speaker position on the top
- Smooth motion and turning
- Bumpers on the back
- The pen holder – not wobbly at all
- Charging point at the back rather than on the bottom
- Very "cute, modern and friendly" looking
- The children loved Loti's face.
- The children renamed Loti as soon as they found out that they could, they called her rainbow cyan, they said it made them feel like they had

ownership of her and that she belonged to them - surprisingly, this was really important to them.

- When using the app, the children needed no training at all, they knew exactly what they were doing and where to find the blocks that they needed. They transferred their skills from Scratch.
- Also, when using the app they were really taken with the simulation area which allowed them to see what their program would look like before testing it on Loti.

Lesson Ideas

While talking to their class teacher and from what the children naturally gravitated towards, we came up with a few lesson ideas:

- **Maths angles and measure** - The children were really engaged with the new and improved pen holder, the smooth motion of the robot meant that they were able to draw really accurate shapes. They spent a good 40 minutes independently investigating the code they would need to draw out several shapes. They even gave drawing their initials a go!
- **Maths number** - We spent ages looking at the greater and less than operators to get Loti to turn on her side lights under certain light levels.
- **Design a rumba** - the children programmed Loti to follow a random path and remain within a sectioned off area, reversing and replotting its path when it reached the boundary.
- **Escape the maze** - we designed a quick maze that the children were asked to program a way out of. During this the children accidentally drove Loti up a slight ramp - this sparked a massive conversation about what incline Loti would be able to climb and how we would investigate this.

With many thanks to Maria Temel from Bolton Schools ICT.

Many thanks to the children at Church Road Primary School who were Terrific Testers and put Loti-Bot through its paces for us.



Here are the views of five children from the Year 6 class.

"She's amazing and it's a big improvement.

I think she'd be great for Computing days, and I'd like doing things like building her a maze and coding her to travel through it."

Olivia

"Loti's presentation is amazing, and she is modern and user friendly.

I think that Loti-bot will be useful in future computing lessons as it has had major improvements on features and looks."

Avesha

"I think that Loti-Bot will be good in the classroom as its coding system is similar to Scratch which most children know how to use. So, it will be user friendly. I also think it will be good for classroom Projects."

Gethin

I think it's easy to program and it's sturdy so if it accidentally gets dropped it will survive."

Daksh

"It looks sleek, and I love the presentation. It is quite interactive, which is great for smaller children too and will encourage more coding in classes.

I also really like the coding platform as it is similar to Scratch, which I use every day, so I can use the same skills with ease."

Reagan

Jodie Lopez, an education technology expert, shares her thoughts on Loti-Bot.

She describes Loti-Bot as; *“The trusty robot that captivates young minds!”*



“Loti-Bot will find a place in any classroom and soon become a pupil favourite.” Jodie Lopez

Children love the look of Loti-Bot, from the flashy side lights to the friendly eyes. Loti-Bot can be used with all ages - with younger children you may do some shared coding via the app with more teacher input, and older children will find ways to create more complex code with increasing independence.

Loti-Bot has an accompanying app which uses block-based coding (similar to Scratch Jr) which many children may already be familiar with. These simple code blocks introduce children to building algorithms and directing their Loti-Bot which has a range of features: from basic directions (forwards, backwards, turning left and right by chosen degrees); to changing the side light colours; and also adding a pen to draw onto tables, paper or the floor (if yours is wipe clean!) Loti-Bot has a safety sensor too, which stops Loti-Bot from falling off tables or down any stairs.

Having a physical output when programming, from seeing Loti follow directional instructions through to using Loti to draw things, can really bring coding to life for children and help them to relate this to real-world applications. Students can start to consider the role of robots and robotics in the world around them, and the

implications this may have for our society. Maybe Loti-Bot could take the register to the office - will that put one of the children out of a job?!

From simple ideas to bigger considerations such as delivery robots in cities and driverless cars, we have a few ideas on how to integrate Loti-Bot into your computing curriculum, and indeed across the wider curriculum.

Students embrace computational thinking, creativity, problem-solving, and collaboration when using Loti-Bot and are enthused to then think about how these applications can be useful to themselves and others in the real world.

With many thanks to Jodie Lopez.

You can also enjoy Jodie's computing lessons with Loti Bot and read her blog, 'Embracing Learning and Fun with Loti-Bot'.

Monique Buckley-Thorne and her team from Brookland Junior School use Loti-Bot and share their experiences.



“Thank you once again for providing the Loti-Bots to our school. They have made a truly meaningful impact on our pupils’ coding journey, inspiring curiosity, creativity, and confidence as they develop their computational thinking skills. The children have been highly engaged, and it has been wonderful to see their enthusiasm grow as they explore, problem-solve, and collaborate through hands-on learning.” Monique Buckley-Thorne

Who is sharing this testimonial/review?

I am a class teacher at Brookland Junior School. I teach Year 3 children and plan the computing for our year group. I am also Computing Curriculum Lead at our school.

Testimonial

The Loti-Bots have been introduced into our Year 3 computing curriculum. They explore scratch in the Autumn term so we thought it would be good for them to develop their coding skills further in the summer term. The children made links to their Scratch learning and noticed that the code blocks look similar.

- If children have prior knowledge with Scratch, I suggest giving them time to explore what they can do with the Loti-Bots. I was impressed to see my class able to make it move forwards, backwards and begin to do various turns. They also were able to change the Loti-Bots colour, before any teaching took place.

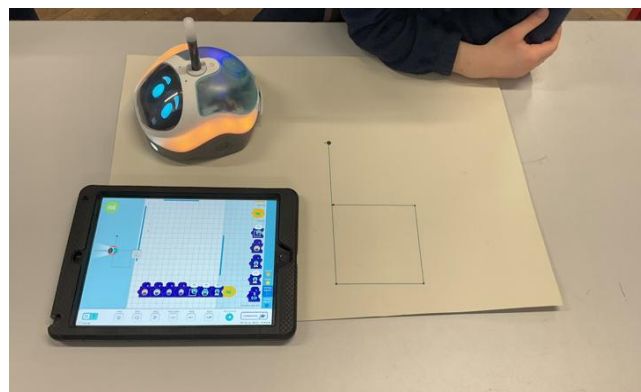
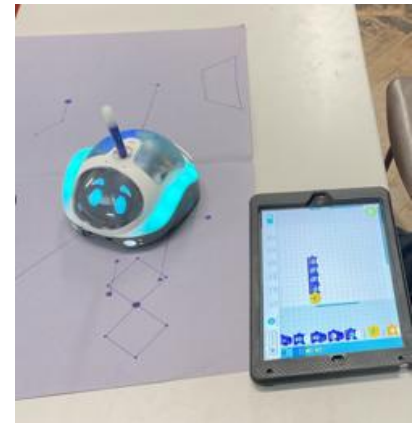
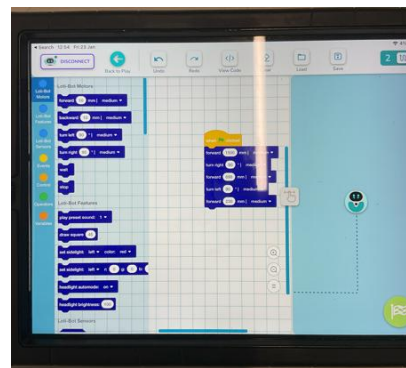
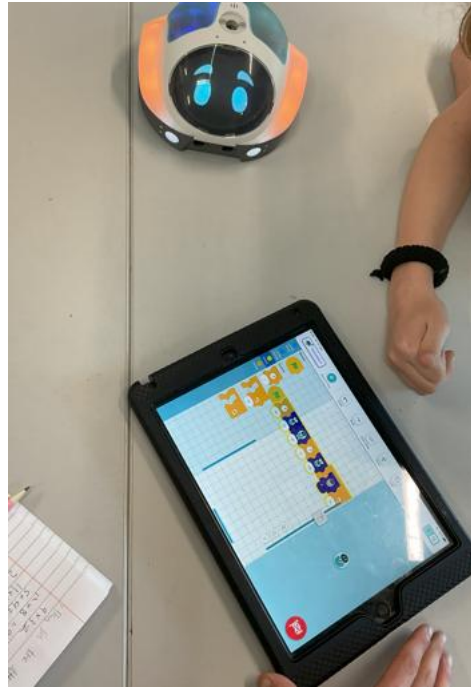
I used the plan that was provided and created SMARTS that were aligned with our teaching and learning at Brookland. Our school usually does 4 computing lessons per half term and so I taught the first 4 lessons.

The children really enjoyed creating their own mazes and some even wanted to challenge themselves by making a complex maze. They then used their problem-solving skills to try and direct the Loti-Bot through the maze. They had to use resilience and patience as they were not successful the first time around. They were so dedicated to being successful that we continued the same lesson the following week. The second time around, the children used metre sticks to measure the distances throughout the maze, which then helped them to be successful. Connections were made to maths learning of angles and turns. The children already knew about 90 degree turns and this also supported them with turning through the maze. They really enjoyed this activity.

The next lesson was the 'Navigating a model town' lesson. We recapped what we had learnt from the maze lesson and thought about how this learning would support us with navigating through the classroom. The children were delighted to come up with key using different symbols and we transformed the classroom into a town. We had a school, bus stop, roads, hospital etc. The children then were set tasks e.g. to get from the hospital to the school. They used their problem-solving skills to debug their Loti-Bot until they were successful. Another really enjoyable lesson for the children.

The following lesson we introduced the pens and drawing shapes. The children used their KS1 knowledge of 2D shapes and their learning from previous 2 lessons. We started off with creating a square. The children realised that if they repeated the same code 4 times, they would make a square. Forwards and then 90degree turns. Some children were challenged/extended by asking to create a tessellated pattern.

Loti-Bot in action



A big thank you to Monique Buckley-Thorne and the staff and pupils at Brookland Junior School.

Please see the planning they used with Loti-Bot 'Example Planning from Brookland Junior School'.