



# Build-r

## MASTER THESIS STUDENT, MACHINE VISION

### ABOUT US:

Build-r is an early stage, fast-moving company within construction automation. We are currently a three-person team working to develop the world's first autonomous system for dry wall installation. Build-r is located in Stockholm, we are part of the Serendipity Group and are currently also members of ABB's corporate incubator Synerleap.

With our construction robot we are automating heavy, repetitive tasks and are working with new technology to innovate the industry. A construction site is far less structured and more dynamic than the manufacturing industry where industrial robots have been around for decades. At a standard production chain, the product and the setup can be adapted for robotic usage, something that is very hard in the construction industry. This makes machine vision and perception very important parts of a robotic implementation.

Your thesis will have a great impact on our business and you will be a part of our dynamic team!

### ABOUT YOU:

We are looking for an ambitious and adventurous student who is interested in combining camera setups, 2D and 3D vision, filtering, edge detection and pattern recognition to build a system specifically designed for our implementation. Previous courses within machine vision, autonomous systems or image treatment are recommended.

#### Personal skills:

- You can plan and execute your work independently
- You take initiative and lead the way with new developments and ideas
- You thrive in an uncertain and exploratory environment.
- You have a *can do* attitude!

#### Technical skills:

- Need to have:
  - o C++,
  - o experience of working with machine vision applications
- Nice to have: s
  - o Python,
  - o Matlab,
  - o experience with RobotStudio or ROS

If this is you, we would be happy to hear from you!

**Please contact Rasmus Pettersson, CTO for more information.**

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